

Anthony R. Lupo
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VITA

Date of Birth: 13 March 1966

Married - three children

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EDUCATION

Ph.D. - Atmospheric Science, Purdue University - West Lafayette, IN, 1995

M.S. - Atmospheric Science, Purdue University - West Lafayette, IN, 1991

B.S. - Meteorology, State University of New York at Oswego - Oswego, NY, 1988

A.S. - Mathematics/Science, Cayuga County Community College - Auburn, NY, 1986

PROFESSIONAL EXPERIENCE

2009 - present: Professor, Department of Soil, Environmental, and Atmospheric Science, University of Missouri - Columbia, Columbia, Missouri 65211. Department Chair: 2008 – present.

2003 - 2009: Associate Professor, Department of Soil, Environmental and Atmospheric Sciences, University of Missouri – Columbia, Columbia, Missouri 65211.

1997 - 2003: Assistant Professor, Department of Soil and Atmospheric Sciences, University of Missouri - Columbia, Columbia, Missouri 65211.

1995 - 1997 :	Postdoctoral Research Associate, Department of Earth and Atmospheric Sciences, The University at Albany / State University of New York, Albany, New York 12222.
1989 - 1995 :	Research Assistant, Department of Earth and Atmospheric Sciences, Purdue University, West Lafayette, Indiana 47907.
1990 - 1991 :	Teaching Assistant, Atmospheric Dynamics II, Atmospheric Dynamics II Lab, and Forecasting Laboratory, Purdue University, West Lafayette, Indiana 47907.
1992 - 1993 :	Teaching Assistant, Survey of Meteorology, Survey of Meteorology Laboratory, Purdue University, West Lafayette, Indiana 47907.

HONORS AND MEMBERSHIPS (In academic, professional, and scholarly societies)

- Fulbright Teaching / Research Scholar Belgorod University, Belgorod, Russia) 2014 – 2015.
- Won the College of Science (Dept of Earth, Atmospheric, and Planetary Sci) Outstanding Alumni Award Purdue University 10/11/2013
- Nominated to serve on the Board of Natural Resources (BNR) Science Roadmap for Natural Resources – Committee (national).
- Chosen to be part of the US-Russian Presidents Climate Subgroup of the Science and Technology Working Group (Fall 2011).
- MU Professor of the Year Award (May, 18 2010) (Winners go on to national competition sponsored by Carnegie foundation)
- Won the Missouri Academy of Science Most Distinguished Scientist Award, April 2009
- Won a Kemper Teaching Award, April 2008. This is the highest award a college-level teacher can win in Missouri (Honorarium \$10,000.00)
- Inducted into the CAFNR teaching academy, April 2008 (duties: mentor two younger faculty on teaching).

- Won the College of Agriculture food and Natural Resources (CAFNR) Outstanding undergraduate Advisor award, (\$1,000.00 honorarium) April 2008
- Selected for the LEAD21 program (class of 2008 – 2009). This is a program with national reach for leadership training for future leaders and administrators in academics.
- Acknowledged as part of the IPCC which shared the Nobel Peace Prize with Mr. Albert Gore, Jr., October 2007
- Won the CAFNR Senior level teaching award, (\$1,000.00 honorarium) April 2006
- Won the MU Chapter of Gamma Sigma Delta - Teaching Award of Merit; April 2005
- Selected for the 3rd CAFNR Teaching Scholars Program 2003 – 2006.
- Fulbright Research Scholar (2003 – 2004 – to Russian Academy of Sci. / summer 2004)
- American Meteorology Society
 - Associate Editor, Monthly Weather Review (2000 – 2003, 2007 – 2009)
 - Certified Consulting Meteorologist #660
 - Serving on the Board of CCM (February 2014 – present)
 - Nominated for Fellow (May 2012)
 - University Representative, Weather Coalition
 - Member, Network of Networks, Ad Hoc Committee – Metadata
 - Member, Ad Hoc Committee on Uncertainty in Forecasts (ACUF)
 - Member, THORPEX working group 6 (blocking).

National Council of Industrial Meteorologists

- Sigma Xi Honor Society
 - President, MU Chapter 2002 – 2004, 2008-2009
 - Vice President, MU Chapter 2001 – 2002, 2004-2005, 2007-2008
 - Secretary 2005-2007, 2009
 - Treasurer, 2009-present
- Phi Kappa Phi Honor Society
- Fellow, Royal Meteorological Society
- Missouri Academy of the Sciences
 - Chair, Atmospheric Sciences Section (2000 - 2002).
 - Editor, Transactions of the Missouri Academy (2002 – 2006)
 - Elected Vice President for 2008 – 2009.

- President Elect for 2009 – 2010
- President for 2010-2011
- Past President for 2011-2012
- Fellow, 2013
- American Geophysical Union
- European Geophysical Union
- MU Administrative Representative to UCAR – NCAR (2003 – present)
- MU representative on the Board on Oceans and Atmospheres of the National Association of State Universities and Land-Grant Colleges.
- UCAR/UNIDATA Contract Contact point for the University of Missouri (1998 – 2003)
- Member, National Weather Association
 - Committee member: Weather Analysis and Forecasting Committee (2002 – 2009)
 - Committee member: Education Committee (2006 – present)
 - Committee member: Publication Committee (2007 – present)
 - Associate Editor (2002 – 2009)
 - Editor, 2009 – present
- Appointed to the University of Missouri Doctoral Faculty January 2000, reappointed 2005, 2010
- Member, Gamma Delta, Sigma, Honor Society of Agriculture
 - Historian, MU Chapter 2004 - 2005
 - President, MU Chapter 2003 - 2004
 - President Elect, MU Chapter 2002 – 2003
 - Secretary, MU Chapter 2001 - 2002

PUBLICATIONS

Peer Refereed Publications and Invited Book Chapters

Co-authors that are underlined were graduate students under my advisement.

Refereed Publications (79 total) (only those since 2007 shown)

Jensen, A.D., and A.R. Lupo, 2014: The Role of Deformation and Other Quantities in an

- Equation for Enstrophy as Applied to Atmospheric Blocking. *Dynamics of Atmospheres and Ocean*, **2014**, <http://dx.doi.org/10.1016/j.dynatmoce.2014.03.004> (100%)
- Hubbart, J.A., E. Kellner, L. Hooper, E. Aldrich, N. I. Fox, P.E. Guinan, A.R. Lupo, P. S. Market, K. Stephan, and B. M. Svoma, 2014: Localized climate and surface energy flux alterations across an urban gradient in the Central U.S. *Energies*, *March, 2014* (10%)
- Lupo, A.R., S.J. Colucci, I.I. Mokhov, and Y. Wang, 2013: Large-scale dynamics, anomalous flows, and teleconnections (Editorial / Review). *Advances in Meteorology, 2014 Volume 2014 (2014), Article ID 207413. Chief Guest Editor, the others were my associates.* (100%)
- Lupo, A.R., I.I. Mokhov, Y.G. Chendev, M.G. Lebedeva, M. Akperov, and J.A. Hubbart, 2014: Forecasting summer season drought in western Russia. *Accepted pending revision by Advances in Meteorology, Special Issue: Large-scale dynamics, anomalous flows, and teleconnections, 9 pp. Article ID 942027* (60%)
- Wang, Y, A.R. Lupo, J. Qin 2013: A Response in the ENSO Cycle to an Extratropical Forcing Mechanism During the El Nino to La Nina Transition. *Tellus A 2013, 65, 22431*, <http://dx.doi.org/10.3402/tellusa.v65i0.22431>. (50%)
- Jensen, A.D. and A.R. Lupo, 2013: Using Enstrophy Based Diagnostics in an Ensemble for Two Blocking Events. *Advances in Meteorology, Special Issue: Large scale dynamics, anomalous flows, and teleconnections Atmospheric Science, 2013, 7pp, Article ID 693859.* (100%)
- Sitnov, S.A., I.I. Mokhov, and A.R. Lupo, 2013: Evolution of the water vapor plume over Eastern Europe during Summer 2010 Atmospheric Blocking. *Advances in Meteorology, Special Issue: Large scale dynamics, anomalous flows, and teleconnections, 11pp Article ID 253953.* (33%)
- Jensen, A.D., and A.R. Lupo, 2013: Using Enstrophy Advection as a Diagnostic to Identify Blocking Regime Transition. *Quarterly Journal of the Royal Meteorological Society*, **139**, 2- 7. DOI: 10.1002/qj.2248 (100%)
- Lupo, A.R. (Author Ch 1), 2013: *Heartland Institute, 2013: Climate Change Reconsidered: 2013 The Interim Report of the Nongovernmental International Panel on Climate Change (NIPCC)*, edited by Craig Idso, Ph.D., Robert M. Carter, Ph.D, and S. Fred Singer, Ph.D. (released 29 August 2011) – 10% (overall) 75% (Chapter).
- Mokhov, I.I., M.G. Akperov, M.A. Prokofyeva, A.V. Timazhev, A.R. Lupo, H. Le Treut, 2012: Blockings in the Northern Hemisphere and Euro-Atlantic region: Estimates of changes from reanalyses data and model simulations. (In Russian: Блокинги в Северном полушарии и Евро-Атлантическом регионе: оценки изменений по данным реанализа и модельным расчетам). *Doklady*, **449**, 430-433. (25%)

Market, P.S., S. Rochette, and A.R. Lupo, 2013: A Comparison of Modern and Historical Methods for Calculating Montgomery Steamfunction. *Atmospheric Science Letters*, **14**, 41-44.. (30%)

Schnetzler, A.E., J.M. Glisan, A. Hussain, P.S. Market, and A.R. Lupo, 2012: A comparative study to quantify the Sensitive dependence in numerical models for a developing low in the Southern Plains. *Transactions of the Missouri Academy of Science*, **44**, 20 - 28.

Dawson, N.W., P.E. Guinan, and A.R. Lupo, 2012: A Long-Term Study of Tropical Systems Impacting Missouri. *Transactions of the Missouri Academy of Science*, **44**, 29 - 41.

Lupo, A.R., I.I. Mokhov, M.G. Akperov, A.V. Chernokulsky, and A. Hussain, 2012: A dynamic analysis of the role of the planetary and synoptic scale in the summer of 2010 blocking episodes over the European part of Russia. *Advances in Meteteorology*, Vol. 2012 (2012), Article ID 584257, 11 pages

Mokhov, I.I., A.R. Lupo, and M.A. Prokofyeva, 2012: Blockings Activity in the Northern Hemisphere: Tendencies of Change for Last Decades. Research Activity in Atmospheric and Oceanic Modeling World Meteorological Organization / Technical Document - No. 1064: 2.20 - 2.21

Lupo, A.R., R.S. Hayward, and G.W. Whitledge, 2012: Synchronization of fishes' temporal feeding patterns with weather in mid-Missouri. *Journal of Freshwater Ecology*, **27:3**, 419-428.

Lupo, A.R., N.B. Smith, P.E. Guinan, and M.D. Chesser, 2012: The Climatology of Missouri Region Dew Points and the Relationship to ENSO. *National Weather Digest*, in press. (70%).

Chendev, Y.G., A.N. Petin, and A.R. Lupo, 2012: Soils as indicators of climate change. *Geography, Environment, Sustainability (A publication of the Russian Academy – Moscow State University)* **1**, 4-17.

Lupo, A.R. (Co-Author Ch 1), 2011: *Heartland Institute, 2011: Climate Change Reconsidered: 2011 The Interim Report of the Nongovernmental International Panel on Climate Change (NIPCC)*, edited by Craig Idso, Ph.D., Robert M. Carter, Ph.D, and S. Fred Singer, Ph.D. (released 29 August 2011) – 10% (overall) 50% (Chapter).

Ellrod, G., S. Harned, K. Lavin, A.R. Lupo, P. Roohr, 2011: National Weather Digest: More than three decades of service to the meteorological community. *National Weather Digest*, **35:2**, 163-168. (80%)

Wang, Y., X. Xu, A.R. Lupo, P. Li, and Z. Lin, 2011: The Remote Effect of the Tibetan Plateau on Downstream Flow in Early Summer. *Journal of Geophysical Research Atmospheres*, **116**, D19108, doi:10.1029/2011JD015979. (33%)

- Stambaugh, M.C., R. P. Guyette, E. R. McMurtry, E.R. Cook, D.M. Meko, and A.R. Lupo, 2011: Drought duration and frequency in the U.S. Corn Belt during the last millennium (AD 992 - 2004). *Agricultural and Forest Meteorology*, **151**, 154-162. (15%)
- Lupo, A.R., 2011: *Interannual and Interdecadal variability in hurricane activity. Hurricane Research*, ISBN 978-953-307-238-8, Intech Publishers, Vienna. (Book Chapter) Lupo, A.R. Book editor, Recent Hurricane Research: Climate, Dynamics, and Societal Impacts, 616 pp. (100%)
- Hussain, A., and A.R. Lupo, 2010: Scale and stability analysis of blocking events from 2002-2004: A case study of an unusually persistent blocking event leading to a heat wave in the Gulf of Alaska during August 2004. *Advances in Meteorology*, Volume 2010, Article ID 610263, 15 pages doi:10.1155/2010/610263. (100%)
- Moon, J.T., P.E. Guinan, D. J. Snider, and A.R. Lupo, 2009: CoCoRaHs in Missouri: Four years later, the importance of observations. *Transactions of the Missouri Academy of Science*, **43**, 7-18. (60%)
- Grathwohl, K.T., A.R. Lupo, and P. S. Market, 2009: A Possible Heat Island Effect from a Small Rural Community. *Transactions of the Missouri Academy of Science*, **43**, 33 - 38 (70%)
- Birk, K., A.R. Lupo, P.E. Guinan, and C.E. Barbieri, 2009: The interannual variability of Midwestern temperatures and precipitation as related to the ENSO and PDO. *Accepted pending revision Atmosfera, August, 2009*.
- Lupo, A.R. (Contributing Author Ch 6 only), 2009: *Heartland Institute, 2009: Climate Change Reconsidered: The Report of the Nongovernmental International Panel on Climate Change (NIPCC)*, edited by Craig Idso, Ph.D., and S. Fred Singer, Ph.D. (released 2 June 2009)
- Wang, Y., and A.R. Lupo, 2009: An extra-tropical Air-Sea Interaction over the North Pacific in Association with a preceding El Nino Episode in Early Summer. *Monthly Weather Review*, **137**, 3771 - 3785. (50%)
- Market, P.S., G. Dolif Neto, A.E. Becker, B.P. Pettegrew, C.J. Melick, C.J. Schultz, P. I. Buckley, J.V. Clark, A.R. Lupo, R. Holle, N. Demetriades, and C. Barbieri 2008: A Comparison of Two Cases of Low-Latitude Thundersnow. *Atmosfera*, **22**, 331- 356. (10%).
- Buckley, P. I., P.S. Market, A.R. Lupo, and N.I. Fox, 2008: COHIX: Further studies of the heat island associated with a small Midwestern city. *Atms. Sci. Lett.*, **194**, 226 - 230. DOI: 10.1002/asl.194 (30%)
- Lupo, A.R., T. Hagen, J. Glisan, E. Aldrich, P.E. Guinan, and P.S. Market, 2008: The presentation of precipitation information in television broadcasts: What is normal? *Nat. Wea. Dig.*, **32:2** (70%)

Tilly, D.E., A.R. Lupo, and C.J. Melick, P.S. Market 2008: Calculated height tendencies in a Southern Hemisphere blocking and cyclone event: The contribution of diabatic heating to block intensification. *Monthly Weather Review*, **136**, 3568–3578 (80%).

Lupo, A.R., 2008: Reply to: “In Defense of a Theory of Anthropogenic Global warming”. *Journal of Missouri Medicine*, **105:3**, 186. (100%)

Lupo, A.R., 2008: Anthropogenic Global Warming: A Skeptical point of view. (An invited review article for): *Journal of Missouri Medicine*, **105:2**, 22-26. (100%)

Lupo, A.R., T.K. Latham, T. Magill, J.V. Clark, C.J. Melick, and P.S. Market, 2007: The Interannual Variability of Hurricane Activity in the Atlantic and East Pacific Regions. *National Weather Digest*, *in press*. (80%)

Melick, C.J., L.L. Smith, B.P. Pettegrew, A.E. Becker, P.S. Market, and A.R. Lupo, 2007: Investigation of Stability Characteristics of cold-season convective precipitation events by utilizing the growth rate parameter. *JGR Atmospheres*, **113**, D08108, doi:10.1029/2007JD009063, 2008. (15%)

Zuki, Md. Z., and A.R. Lupo, 2008: The interannual variability of tropical cyclone activity in the southern South China Sea. *J. Geophys. Res.*, **113**, D06106, doi:10.1029/2007JD009218 – 14 pp. (100%)

Lupo, A.R., E. P. Kelsey, D.K. Weitlich, N.A. Davis, and P.S. Market, 2008: Using the monthly classification of global SSTs and 500 hPa height anomalies to predict temperature and precipitation regimes one to two seasons in advance for the mid-Mississippi region. *National Weather Digest*, *in press*. (80%)

Foltz, C.S., Lack, S.A., Fox, N.I., Lupo, A.R., Hasheider, R.J., 2007: The First Conference on Advancing Renewables in the Midwest. *Bull. Amer. Meteor. Soc.*, **88**, 1097 - 1099. (60%)

Market, P.S., N.I. Fox, B.P. Pettegrew, and Anthony R. Lupo, 2007: Second Conference on Weather Analysis and Forecasting Issues in the Central United States. *Bull. Amer. Meteor. Soc.*, **88**, 1795 – 1798. (40%)

Lupo, A.R., I.I. Mokhov, S. Dostoglou, A.R. Kunz, and J. P. Burkhardt, 2007: Оценка влияния процессов планетарного масштаба с анализом фазовых траекторий и энтропии на распад блокировок (Translated: The impact of the planetary scale on the decay of blocking and the use of phase diagrams and enstrophy as a diagnostic). *Izvestiya, Atmos-Osc.*, **43**, 1 - 8. (In English version: pages 45 – 51) (80%)

Lupo, A.R., Kelsey, E.P., D.K. Weitlich, I.I. Mokhov, F.A. Akyuz, Guinan, P.E., J.E. Woolard, 2007: Interannual and interdecadal variability in the predominant Pacific Region SST anomaly patterns and their impact on a local climate. *Atmosfera*, **20**, 171- 196. (80%)

Luo, D., and A.R. Lupo, 2007: Dynamics of eddy-driven low-frequency dipole modes. Part II:

Free mode characteristics of NAO and diagnostic study. *Journal of the Atmospheric Sciences*, **64**, 3 - 28. (50%)

Luo, D., A.R. Lupo, and H. Wan 2007: Dynamics of eddy-driven low-frequency dipole modes. Part I: A simple model of North Atlantic Oscillations. *Journal of the Atmospheric Sciences*, **64**, 29 - 51. (40%)

Refereed Abstracts, conference papers, comments, letters to the editor (3)

Chendev, Y.G., A. R. Lupo, A. Petin, and M.G. Lebedeva, 2013: Influence of long and short term climatic changes to chernozem soils central chernozem region of Russia. 36th *Applied Geography Conference, Annapolis, MD, October 30 – November 1, 2013*. (25%)

Hagen, J.C., and A.R. Lupo, 2008: Rebuttal Global Warming Landers. *American Medical News*, <http://www.ama-assn.org/amednews/2008/06/16/edlt0616.htm>. American Medical News June 16, 2008 p 25-26. (50%)

Lupo, A.R., and J.C. Hagan, 2008: How should physicians view the environment? *JAMA* 2008;299(24):2856. (50%)

Non-refereed publications: Conference Preprints (215)

I am the author or co-author on 215 conference preprint papers and only the most recent (since 2007) will be listed here. A complete list can be provided upon request.

Jensen, A.D., A.R. Lupo, 2014: The use of enstrophy-based diagnostics in an ensemble during two blocking events. *The 39th Annual Meeting of the National Weather Association, 18-23 October, 2014, Salt Lake City, UT*.

Renken, J.D., J. Herman, D. Parker, T. Bradshaw, and A.R. Lupo, 2014: Using the Bering Sea and Typhoon Rules to Generate Long-Range Forecasts. *The 39th Annual Meeting of the National Weather Association, 18-23 October, 2014, Salt Lake City, UT*.

Nunes, M.J., J.R. Bell, and A.R. Lupo, 2014: The occurrence of anomalously cold and warm months in the central USA. *The 39th Annual Meeting of the National Weather Association, 18-23 October, 2014, Salt Lake City, UT*.

Newberry, R.G. and A.R. Lupo, 2014: An analysis of the spring-to-summer transition in the West Central Missouri Plains. *The 39th Annual Meeting of the National Weather Association, 18-23 October, 2014, Salt Lake City, UT*.

Nunes, M., J. Bell, and A.R. Lupo, 2014: The occurrence of extreme weather in the Midwest USA. *Transactions of the Missouri Academy of Science*, 48.

Donovan, J., P.E. Guinan, R.E. Massey, and A.R. Lupo, 2014: The interannual variability of

- Missouri climate and the impact on crop yields. *Transactions of the Missouri Academy of Science*, 48.
- Bradshaw, T., and A.R. Lupo, 2014: The Civil War in Missouri: The cold October of 1863. *Transactions of the Missouri Academy of Science*, 48.
- Lupo, A.R., and A.D. Jensen, 2013: Using enstrophy transport as a diagnostic to identify flow regime transformation. The 16th Cyclone Workshop, Montreal, Canada, 22 – 26 September, 2013.
- Lupo, A.R., and A.D. Jensen, 2013: Using enstrophy transport as a diagnostic to identify flow regime transformation. The 13th Davos Atmosphere and Cryosphere Assembly, International Union of Geodesy and Geophysics, 8-12 July, 2013, Davos Switzerland
- Chendev, Y.G., A.R. Lupo, A.N. Petin, and M.G. Lebedeva, 2013: The Influence of long- and short-term climatic changes to chernozem soils: Central Chernozem Region of Russia. The 36th Conference on Applied Geology and Geography, Annapolis MD 30 October – 1 November, 2013.
- Lebedeva, M.G., A.R. Lupo, Y.G. Chendev, O.V. Crymskaya, A.B. Solovyov, 2013: Blocking anticyclones as a factor of dangerous hydrometeorological phenomena in the centre of Eastern Europe (regional manifestations).
- Bell, J.R., and A.R. Lupo, 2013: The Unusual Warmth of March 2012: Some Possible Causes. *25th Conference on Climate and Climate Variability, 93rd Meeting of the AMS, Austin, TX, January 6-10, 2013.*
- Jensen, A.D., A.R. Lupo, and I.I. Mokhov, 2013: Using Enstrophy Transport as a Diagnostic to Identify Flow Regime Transformation. *25th Conference on Climate and Climate Variability, 93rd Meeting of the AMS, Austin, TX, January 6-10, 2013.*
- Soelle, C.B., E.M. Blizzard, A.R. Lupo, 2012: The Effect of Topography on Precipitation Amounts in Missouri. *The 37th Annual Meeting of the National Weather Association, Madison, WI, 6- 10 October, 2012*
- Bell, J.R., and A.R. Lupo, 2012: The unusual warmth of March 2012: A historical perspective. *The 37th Annual Meeting of the National Weather Association, Madison, WI, 6- 10 October, 2012*
- Lupo, A.R., I.I. Mokhov, Y.G. Chendev, M.G. Lebedeva, J.A. Hubbard, 2012: Forecasting summer season drought in Western Russia. Conference on Climate Change in Missouri: Gaining the Advantage. June 6-8, Columbia, MO
- Soelle, C.B., E.M. Blizzard, A.R. Lupo, 2012: The Effect of Topography on Precipitation Amounts in Missouri. *Transactions of the Missouri Academy of Science*, 46

- Lupo, A. R., I.I. Mokhov, Y.G. Chendev, M.G. Lebedova, and J.A. Hubbard, 2012: Forecasting summer season drought in Western Russia *Transactions of the Missouri Academy of Science*, 46
- Lupo, A.R., I.I. Mokhov, Y.G. Chendev, M.G. Lebedova, J.A. Hubbard, 2012: Forecasting summer season drought in Western Russia. *AMS 25th Conference on Weather Analysis and Forecasting (WAF) and the 21st Conference on Numerical Weather Prediction (NW) Jointly with the 46th Canadian Meteorological and Oceanographical Society (CMOS) Congress 2012, 29 May–1 June 2012, Montreal, Quebec, Canada*
- Market, PS, R.A. Wolf, J. Haase, A. R. Lupo, J. Gagan, and C. C. Crowe. Studies of dry airstreams in mature extratropical cyclones with and without comma heads. [AMS 25th Conference on Weather Analysis and Forecasting \(WAF\) and the 21st Conference on Numerical Weather Prediction \(NW\) Jointly with the 46th Canadian Meteorological and Oceanographical Society \(CMOS\) Congress 2012, 29 May–1 June 2012, Montreal, Quebec, Canada](#)
- Lupo, A.R., and P. Macy, 2011: 150th Anniversary of the American Civil War: Weather during the summer of 1861. *Bulletin of the Missouri Academy of Science*, 40:1, 1-4.
- Mokhov, I.I, M.G. Akperov, A.R. Lupo, A.V. Chernokulsky, and A.V. Timazhev, 2011: Regional climate extremes in Northern Eurasia associated with atmospheric blockings: Interannual variations and tendencies of change. *Annual meeting for the American Geophysical Union 1 – 4 December, 2011*.
- Kozlowski, D.M., and A.R. Lupo, 2011: Measuring forecast performance during blocking and non-blocking periods in Missouri during the 2010-2011 cold season. *The 36th Annual Meeting of the National Weather Association, Birmingham, AL, 15- 20 October, 2011*.
- Lupo, A.R., J.J. Abraham, Mokhov, I.I., A.A. Vetrova, and M.G. Akperov, 2011: Summer season drought in Eastern Europe and Western Russia. *The 36th Annual Meeting of the National Weather Association, Birmingham, AL, 15- 20 October, 2011*.
- Anip, M.H., and A.R. Lupo, 2011: A climatological study of the Borneo Vortex during Northern Hemisphere Winter Monsoon. *The 36th Annual Meeting of the National Weather Association, Birmingham, AL, 15- 20 October, 2011*.
- Bogowith, M., E. Aldrich, and A.R. Lupo, 2011: The verification of weather forecasts as compared to numerical modeling and climatology: Seasonal and ENSO variations. *The 36th Annual Meeting of the National Weather Association, Birmingham, AL, 15- 20 October, 2011*.
- Anip, M.H., and A.R. Lupo, 2011: A climatological study of the Borneo Vortex during Northern Hemisphere Winter Monsoon. WCRP Open Science Conference, 24-28 October 2011, Denver, CO.

- Lupo, A.R., J.J. Abraham, Mokhov, I.I., A.A. Vetrova, and M.G. Akperov, 2011: Summer season drought in Eastern Europe and Western Russia. *The 19th Conference on Applied Climatology / 36th Annual meeting of the American Association of State Climatologists, 18 – 21 July, 2011, Asheville, NC* (75%)
- Mokhov, I.I., A.R. Lupo, A.A. Vetrova, and M.G. Akperov, 2011: Atmospheric blockings and associated climate extremes in the Northern Hemisphere detection of change and attribution of causes. *The 19th Conference on Applied Climatology / 36th Annual meeting of the American Association of State Climatologists, 18 – 21 July, 2011, Asheville, NC.* (33%)
- Bogowith, M., and A.R. Lupo, 2011: The verification of weather forecasts, numerical models, climatology, and variations in ENSO cycles in forecast accuracy. *Transactions of the Missouri Academy of Science*, **45** (100%)
- Aldrich, E., and A.R. Lupo, 2011: The verification of weather forecasts compared to numerical modeling, climatology, human forecasts and seasonal variations. *Transactions of the Missouri Academy of Science*, **45** (100%)
- Mohd. Anip, M. H., and A.R. Lupo, 2011: A climatological study of the Borneo Vortex during the Northern Hemisphere Winter Monsoon. *Transactions of the Missouri Academy of Science*, **45** (100%)
- Lupo, A. R., J.J. Abraham, and I.I. Mokhov, 2011: Summer season drought in Eastern Europe and Western Russia. *Transactions of the Missouri Academy of Science*, **45** (80%)
- Kozlowski, D.M., and A.R. Lupo, 2011: Measuring forecast performance during blocking and non-blocking periods in Missouri during the 2010-2011 cold season. *Transactions of the Missouri Academy of Science*, **45** (100%)
- Ellrod, G.P., A.R. Lupo, S. Harned, P. Roohr, and K. Lavin, 2011: The National Weather Digest: More than three decades of service to the NWA. *The 36th Annual Northeast Storms Conference, 11 – 13 March, 2011, Taunton, MA* (35%)
- Mokhov, I.I., M.G. Akperov, A.R. Lupo, and A.A. Vetrova, 2011: Atmospheric blockings and associated climate extremes in the Northern Hemisphere: Detection of change and attribution of causes. IUGG Assembly, Melbourne, Australia, June 28 – 7 July, 2011. (30%)
- Ellrod, G.P., A.R. Lupo, S. Harned, P. Roohr, and K. Lavin, 2010: The National Weather Digest: More than three decades of service to the NWA. *The 35th Conference of the National Weather Association, 2 – 7 October, 2010, Tucson, AZ* (20%)
- Lupo, A.R., R.S. Hayward, and G.W. Whitley, 2010: Synchronization of fishes' temporal feeding patterns with weather in Mid-Missouri. *The 35th Conference of the National Weather Association, 2 – 7 October, 2010, Tucson, AZ* (50%)

- Madden, J.M., J.T. Moon, and A.R. Lupo, 2010: The Early Civil War Battles in Southwest Missouri 1861: How Weather May Have Influenced the Outcome. *The 35th Conference of the National Weather Association, 2 – 7 October, 2010, Tucson, AZ*
- Abraham, J.J., K.L. Crandall, L.P. McCoy, R.J. Tillott, P.S. Market, and A.R. Lupo, 2010: The application of diabatic heating in Q-vectors for the study of a midwest cyclone event. *The 35th Conference of the National Weather Association, 2 – 7 October, 2010, Tucson, AZ* (80%).
- Madden, J.M., J.T. Moon, and A.R. Lupo, 2010: The Early Civil War Battles in Southwest Missouri 1861: How Weather May Have Influenced the Outcome. *Transactions of the Missouri Academy of Science*, **44** (100%)
- Weber, E.E., and A.R. Lupo, 2010: The climatological character of air pollution events in the central plains states. *Transactions of the Missouri Academy of Science*, **44** (100%)
- Lupo, A.R., R.S. Hayward, and G.W. Whitley, 2010: Synchronization of fishes' temporal feeding patterns with weather in Mid-Missouri. *Transactions of the Missouri Academy of Science*, **44** (50%)
- Weber, E.E., and A.R. Lupo, 2010: The climatological character of air pollution events in the central plains states. *The 18th Conference on Applied Climatology, 90th Annual meeting of the American Meteorological Society, 17 – 21 January, 2010, Atlanta, GA*
- Smith, N.B., Guinan, P.E., and A.R. Lupo, 2010: A study of the impact of the ENSO cycle on Missouri dew points. *The 22nd Conference on Climate Variability, 90th Annual meeting of the American Meteorological Society, 17 – 21 January, 2010, Atlanta, GA.*
- Smith, N.B., Guinan, P.E., and A.R. Lupo, 2010: A study of the impact of the ENSO cycle on Missouri dew points. *The 1st Symposium for Agroforestry, 6 January, 2010, Columbia, MO.*
- Guyette, R., Stambaugh, M., and A.R. Lupo, 2009: A 14,000-year record of tree growth and 13C in a mid-continental agricultural landscape coupled with oceanic climate proxies. Past Global Changes (PAGES) Open Science Meeting, Corvallis, OR. July 8-11, 2009.
- Hendin, A., A.R. Lupo, and P.S. Market, 2009: The verification of short to long-range forecasts using simple methods. *The 34th Conference of the National Weather Association, 17 – 22 October, 2009, Norfolk, VA*
- Moon, III, J.T., P.E. Guinan, D. Snider, and A.R. Lupo, 2009: CoCoRaHS in Missouri: Three years later, the importance of observations. *The 34th Conference of the National Weather Association, 17 – 22 October, 2009, Norfolk, VA.*
- Smith, N.B., Guinan, P.E., and A.R. Lupo, 2009: A study of the impact of the ENSO cycle on

- Missouri dew points. *The 34th Conference of the National Weather Association, 17 – 22 October, 2009, Norfolk, VA.*
- Fritz, C.L., Market, P.S., Fox, N.I., Skibinski, S., and A.R. Lupo, 2009: A Radiosonde System for the University of Missouri: An Informal Study of a Decaying Thunderstorm near Columbia, Missouri. *The 34th Conference of the National Weather Association, 17 – 22 October, 2009, Norfolk, VA.*
- Market, P.S., K.L. Crandall, M.H.M. Anip, S.P. Riley Z. Paul, and A.R. Lupo, 2009: Analysis of a Cold Occluded Cyclone. The 23rd Conference Weather Analysis and Forecasting, AMS, 1 – 5 June, 2009, Omaha, NE.
- Fritz, C.L., Market, P.S., Fox, N.I., Skibinski, S., and A.R. Lupo, 2009: A Radiosonde System for the University of Missouri: An Informal Study of a Decaying Thunderstorm near Columbia, Missouri. The 23rd Conference Weather Analysis and Forecasting, AMS, 1 – 5 June, 2009, Omaha, NE.
- Market, P.S., K.L. Crandall, M.H.M. Anip, S.P. Riley Z. Paul, and A.R. Lupo, 2009: Analysis of a Cold Occluded Cyclone. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Fritz, C.L., N.I. Fox, A.R. Lupo, 2009: Formulating a correction factor for the effect of sheltering on wind speed observations. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Madden, J.M., Moon, J.T, and A.R. Lupo, 2009: The battle of Wilson’s Creek 1861: How weather may have influenced the outcome. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Smith, N.B., Guinan, P.E., and A.R. Lupo, 2009: A study of the effects of ENSO cycles on Missouri dew points. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Schaumann, J.S., J. Kastman, and A.R. Lupo, 2009: Quantitative approach to forecasting severe hail supporting the one inch severe hail initiative. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Hawkins, C.L, and A.R. Lupo, 2009: A Potential Vorticity diagnosis of a Southern Hemisphere blocking event. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Dawson, N.W., Guinan, P.E., and A.R. Lupo, 2009: A long-term study of tropical systems

- impacting Missouri. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Fritz, C.L., Market, P.S., Fox, N.I., Skibinski, S., and A.R. Lupo, 2009: A Radiosonde System for the University of Missouri: An Informal Study of a Decaying Thunderstorm near Columbia, Missouri. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Moon, III, J.T., P.E. Guinan, and A.R. Lupo, 2009: CoCoRaHS in Missouri: Three years later, the importance of observations. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Calvert, K. T., C. Gravelle, J. Gagan, D. Gaede, A. Foster, D. Albert, and A.R. Lupo, 2009: Interannual variability of snowfall events in southwest Missouri and snowfall to liquid water equivalents at the Springfield WFO: A follow-up study. The 45th Annual Meeting of the Missouri Academy of Science, 24 – 25 April, 2009, Maryville, MO *Transactions of the Missouri Academy of Science*, **43**.
- Hussain, A., and A.R. Lupo, 2009: Scale and Stability Analysis of Selected Atmospheric Blocking Events. *The 21st Conference on Global Climate Change. 89th Annual Meeting of the American Meteorological Society. 14 – 19 January, 2009, Phoenix, AZ (75%)*
- Hussain, A., and A.R. Lupo, 2009: Scale and Stability Analysis of an Unusually Prolonged and a Moderately Extreme Blocking Event Leading to Heat Wave in Gulf of Alaska During August 2004. *The 21st Conference on Global Climate Change. 89th Annual Meeting of the American Meteorological Society. 14 – 19 January, 2009, Phoenix, AZ (75%)*
- Perrin, B.L, K.B. Hughes, and A.R. Lupo, 2009: Can large scale climate controls help predict seasonal tornado activity? *The 21st Conference on Global Climate Change. 89th Annual Meeting of the American Meteorological Society. 14 – 19 January, 2009, Phoenix, AZ (70%)*
- Limpert, G.L., B.L. Perrin, and A.R. Lupo, 2009: Simulating the effects of climate change on parameters for tropical cyclone development in the Atlantic basin. *The 21st Conference on Global Climate Change. 89th Annual Meeting of the American Meteorological Society. 14 – 19 January, 2009, Phoenix, AZ (80%)*
- Perrin, B.L, G. L. Limpert, and A.R. Lupo, 2009: Modeling the ability of the atmosphere to regain an equilibrium state following carbon dioxide-induced forcing. *The 21st Conference on Global Climate Change. 89th Annual Meeting of the American Meteorological Society. 14 – 19 January, 2009, Phoenix, AZ (80%)*
- Lupo, A.R., Guinan, P.E., Weitlich, D.K., Kelsey, E.P., Market, P.S., and N.A. Davis, 2008: Using the Monthly Classification of Global SSTs and 500 hPa Height Anomalies to Predict Temperature and Precipitation Regimes One to Two Seasons in Advance for the

Mid-Mississippi region. *Preprints of the 15th Conference on Applied Climatology. 11 – 15 August, 2008, Vancouver, BC, Canada. (80%)*

Puricelli, K.M., A.M. Hendin, B.L. Perrin, A.S. Kelly, A.R. Lupo, and P.E. Guinan, 2008: The Global Increase in Blocking Occurrences. University of Missouri Life Sciences week Poster Session – April 14 – 19, 2008

Lupo, A.R., Clark, J.V., A.M. Hendin, A.S. Kelly, B.L. Perrin, and K.M. Puricelli, 2008: The global increases in blocking occurrences. The 44th Annual Meeting of the Missouri Academy of Science, 18 – 19 April, 2008, Joplin, MO *Transactions of the Missouri Academy of Science*, **42**.

Hughes, K.B., and A.R. Lupo, 2008: Interannual variability of tornado production in the central plains. The 44th Annual Meeting of the Missouri Academy of Science, 18 – 19 April, 2008, Joplin, MO *Transactions of the Missouri Academy of Science*, **42**.

Zuki, Z.M., G.L. Limpert, and A.R. Lupo, 2008: The interannual variability of tropical cyclone activity in the Southern South China Sea. 28th Conference on Hurricanes and Tropical Meteorology. 24 – 28 May 2008, Orlando, FL (100%)

Limpert, G.L., B.L. Perrin, and A.R. Lupo, 2008: An EdGCM modeling study of the effects of atmospheric trace gas concentration change on Atlantic tropical cyclone development parameters. 28th Conference on Hurricanes and Tropical Meteorology. 24 – 28 May 2008, Orlando, FL (100%)

Chesser, M. D., A.R. Lupo, D. Albert, and C. Buonanno, 2008: The interannual variability of wildfires and related weather in the Missouri – Arkansas region. 88th Annual Meeting of the American Meteorological Society. 13 – 18 January, 2008, New Orleans, LA (80%)

Glisan, J., and A.R. Lupo, 2008: Two cases of extreme blocking events over Europe and North America. 88th Annual Meeting of the American Meteorological Society. 13 – 18 January, 2008, New Orleans, LA (100%)

Hussain, A., A.R. Lupo, and S. Dostoglou, 2008: Lyapunov exponents for barotropic circulation regimes. The 20th Conference on Global Climate Change. 88th Annual Meeting of the American Meteorological Society. 13 – 18 January, 2008, New Orleans, LA (90%)

Lupo, A.R., Clark, J.V., Puricelli, K., Kelley, A., 2008: The global increase in blocking occurrences. The 20th Conference on Global Climate Change. 88th Annual Meeting of the American Meteorological Society. 13 – 18 January, 2008, New Orleans, LA (100%)

Melick, C.J., B.P. Pettegrew, L.L. Smith, A.E. Becker, P.S. Market, and A.R. Lupo, 2007: Comparing snowstorms with and without lightning via the growth rate parameter. 22nd Weather Analysis and Forecasting Conference/18th Numerical Weather Prediction, Salt Lake City, UT, 25 – 29 June.

Melick, C.J., B.P. Pettegrew, L.L. Smith, A.E. Becker, P.S. Market, and A.R. Lupo, 2007: Stability Characteristics of Thundersnow Events: The Impact of Accounting for Ageostrophic Effects in the Growth Rate Parameter. *The 32nd Annual Meeting of the National Weather Association, 13 – 18 October, 2007, Reno, NV (10%)*

Glisan, J., G. Limpert, A. Koleiny, M. Reagan, J. Moker, A.R. Lupo, 2007: The 28 March, 2007 dry line case and the impact of topography. *The 32nd Annual Meeting of the National Weather Association, 13 – 18 October, 2007, Reno, NV (90%)*

Athar, H. , J. Glisan, A.R Lupo, P. Market, P. Pettegrew, M.Reagan, R. Redburn, A. Schnetzler, 2007: A Comparative Study to Quantify the Chaotic Behavior in Numerical Models. *The 32nd Annual Meeting of the National Weather Association, 13 – 18 October, 2007, Reno, NV (90%)*

Clark, J.V, Mihalka, K., Lupo, A.R., Puricelli, K., Perrin, B., Kelly, A., 2007: The increase in Southern Hemisphere blocking. Is it real? *The 32nd Annual Meeting of the National Weather Association, 13 – 18 October, 2007, Reno, NV (100%)*

Melick, C.J., B.P. Pettegrew, L.L. Smith, A.E. Becker, P.S. Market, and A.R. Lupo, 2007: Stability Characteristics of Snowstorms Utilizing the Growth Rate Parameter: A Comparison of Lightning vs. Non-Lightning Events. The 43rd Annual Meeting of the Missouri Academy of Science, 20 – 21 April, 2007, St. Joseph, MO. *Transactions of the Missouri Academy of Science*, **41**.

Hussain, A., A.R. Lupo, and S. Dostoglou, 2007: A calculation of Lyapunov exponents for atmospheric blocking. *The 16th Conference on Atmospheric and Oceanic Fluid Dynamics, June 25-29, 2007 Santa Fe, NM.*

Market, P. S., P. E. Guinan, B.P. Pettegrew, C. J. Melick, A. E. Becker, C. C. Crowe, T. Snyder, A. R. Lupo, and N. I. Fox, 2007: Overview of the 01 December 2006 heavy snow event across Missouri. The 43rd Annual Meeting of the Missouri Academy of Science, 20 – 21 April, 2007, St. Joseph, MO. *Transactions of the Missouri Academy of Science*, **41**.

Schnetzler, A.E., C.F. Dierking, A.R. Lupo, 2007: Seasonal temperature and precipitation dependencies in southeast Alaska. The 43rd Annual Meeting of the Missouri Academy of Science, 20 – 21 April, 2007, St. Joseph, MO. *Transactions of the Missouri Academy of Science*, **41**.

Schnetzler, A.E., G. Amenta, H. Athar, J. Glisan, P. Market, B. Pettegrew, R. Redburn, M. Reagan, M. Wood, and A.R. Lupo, 2007: A comparative study to quantify the chaotic behavior in numerical models. The 43rd Annual Meeting of the Missouri Academy of Science, 20 – 21 April, 2007, St. Joseph, MO. *Transactions of the Missouri Academy of Science*, **41**.

Hussain, A., A. R. Lupo, and S. Dostoglou, 2007: A calculation of Lyapunov exponents for

Atmospheric blocking. The 43rd Annual Meeting of the Missouri Academy of Science, 20 – 21 April, 2007, St. Joseph, MO. *Transactions of the Missouri Academy of Science*, **41**.

Melick, C.J., B.P. Pettegrew, L.L. Smith, A.E. Becker, P.S. Market, and A.R. Lupo, 2007: Stability Characteristics of Snowstorms Utilizing the Growth Rate Parameter: A Comparison of Lightning vs. Non-Lightning Events. *11th Annual NWA Severe Storms and Doppler Radar Conference, 22-24 March, 2007, Des Moines, IA. (10%)*

Hussain, A., A.R. Lupo, C. Strong, S. Dostoglou, 2007: A diagnostic study of atmospheric blocking using Lyapunov exponents over a 50 – year period. *The 87th Annual Meeting of the American Meteorological Society, 19th Conference on Climate Variability and Change, 14 – 18 January, 2007, San Antonio, TX. (70%)*

Latham, T.K., T.H. Magill, C.J. Melick, A.R. Lupo, J.V. Clark, and P.S. Market, 2007: The interannual and interdecadal Variability in Hurricane Activity in the Atlantic and Eastern Pacific Ocean. *The 87th Annual Meeting of the American Meteorological Society, 19th Conference on Climate Variability and Change, 14 – 18 January, 2007, San Antonio, TX. (80%)*

Clark, J.V., K.M. Mihalka, and A.R. Lupo, 2007: Blocking in the Northern and Southern Hemisphere: An update to include 2000 - 2006. *The 87th Annual Meeting of the American Meteorological Society, 19th Conference on Climate Variability and Change, 14 – 18 January, 2007, San Antonio, TX. (100%)*

- Additionally, I have 62 Non-refereed Extension Publications, Amici Curiae, or other publications. These can be provided upon request.

Research grants and awards received

Research grants and awards and fellowships received (21)

* **Successful internal proposal is on file with the Office of research as a model proposal.*

Dr. Lupo has received research support from internal and federal agencies (including fellowships) amounting to a total of \$211,595.00. Another \$700,074.00 was successfully funded as part of collaborative efforts with Dr. Patrick Market, Dr. Neil Fox, Dr. Rich Guyette, Dr. Peter Motavalli, Dr. Frieda Eivazi, and Dr. Adnan Akyuz. Additionally, in August 2011, a grant was funded by the Russian Federation in which I was a partner on the project (\$3 M R, ~\$100 K US) Funded Projects in order of date granted are:

(Note: COMET/CAR grants are collaborative efforts with local National Weather Service Forecast Offices. The review process for COMET/UCAR grants consists of a review at the weather service office regional headquarters. Regional selects their best proposals to be

submitted to UCAR in Boulder, CO where the final selection takes place.). The percent contribution is given only if my contribution is not 100%.

Only grants awarded since 2007 shown here.

Title: Multi millennia climate and growth variability from ancient oak wood in the Midwest agricultural ecosystem.
Collaborators: R. Guyette (PI), M. Stambaugh (Forestry) (Co-PI) (my contribution 10%)
Agency: NSF
Period Covering: 1 January 2006 – 31 December 2008
Amount: \$297,000

Title: The climatology of Dew Points and Fire Weather Related Parameters in the Missouri – Arkansas Region
Collaborators: Dr. Patrick Guinan (MCC), David Gaede (NWS - SGF), and Chris Buonanno (NWS – LZK)
Agency: COMET/UNIDATA (NSF)
Period Covering: 9/1/06 – 12/31/07
Amount: \$10,731

Title: Center for Agricultural / Environmental Experiential Learning.
Collaborators: Dr. Frieda Eivazi (Lincoln U.), A.R. Lupo and P. P. Motavalli
Agency: USDA / CREES 1890 Institution Grant
Period Covering: 9/1/06 – 8/31/09
Amount: \$299,639 total (sub-award: \$53,622.00 – Lupo, Motavalli)

Title: Increasing use of the Integrated Data Viewer (IDV) in the Atmospheric Science Curriculum at the University of Missouri – Columbia.
Collaborators: P.S. Market and N.I. Fox
Submitted: March 2007
Agency: NSF/ UCAR/UNIDATA
Amount Requested: \$ 11,661.00
Amount Funded: \$ 11,661.00

Title: Analysis of blocking characteristics and associated climate anomalies based on observational data and model simulation for the 20th and 21st centuries
Collaborators: Pat Market (Co-PI), Dr. Igor Mokhov (Russian Federation)
Agency: CGP-RFBR
Period Covering: 1 June 2009 – 31 May 2011
Amount: \$72,800

Title: The analysis of blocking and the tendencies for change in the 21st century

Collaborators: Dr. Igor Mokhov (PI-Russian Federation), Alexander Chernokulsky, Merseid Akperov
Agency: Russian Federation for Basic Research
Period Covering 1 January 2012 – 31 December 2014
Amount: \$3,000,000 R (about \$233,000 US)

Title: Adaptation to climate change: Gaining the Advantage
Collaborators: Dr. Verne Kaupp, Vlad Likholetev, Robert Reed, and Thomas Johnson.
Agency MU Advantage
Period covering 1 July – 30 June 2012
Amount: \$25,000.00

Title: TEAM Science (Technology and Educators Advancing Missouri Science)
Collaborators: Dr. Mary Haskins (PI) and Dr. Tiger Gordon (co-I)
Agency: Missouri Dept of Education
Amount: \$1.5M
Role: Co-I
Period Covering: 1 January 2014 to 31 December 2016.

Title: Increasing Access to AWIPS-II in the Unidata Community at the University of Missouri.
Collaborators: P.S. Market, B. M. Svoma, N.I. Fox, and A.R. Lupo (25%)
Submitted: March 2014
Agency: NSF/ UCAR/UNIDATA
Amount Fund: \$ 12,421.00

Invited Papers, Seminars, and Workshops - 96 (Only those since 2007 listed)

I have been invited to speak at universities (Kansas, Montreal – Quebec), the Russian Academy of Science, Moscow State University, and the National Press Club –Edward Murrow Room in Washington, DC.

Lupo, A.R., and P.G. Guinan: Climate, Climate Variability and Change: The Science and the Climate of Missouri. 31 May, 2014, Kansas City, MO Missouri Department of Conservation, Master Naturalist.

Lupo, A.R., Global Warming: Attribution, who is to blame? 15 April, 2014, Kansas City, MO Associated Electric Power Cooperatives NW MO.

Lupo, A.R., Global Warming: Attribution, who is to blame? 30 January, 2014, Moberly, MO

Lupo, A.R., *The weatherman's saga: Weather predictability and greenhouse gasses*. 11 December, 2013.

Lupo, A.R., *Weather and Weather Safety*. Marshall, MO Public Schools. 5 August 2013.

- Lupo, A.R., Using enstrophy transport as a diagnostic to identify flow regime transformation.”
The 13th Davos Atmosphere and Cryosphere Assembly, International Union of Geodesy
and Geophysics, 8-12 July, 2013, Davos Switzerland
- Lupo, A.R., The Science of Climate Change and Implications for Energy Issues. 23 February,
2013. The 77th annual meeting of the Conservation Federation of Missouri. Jefferson
City, MO.
- Lupo, A.R., The Science of Drought and Flood Prediction, 2013 outlook. 14 February, 2013,
Missouri Pork Producers Meeting, Columbia, MO
- Lupo, A.R., The Science of Drought and Flood Prediction, 2013 outlook. 9 February, 2013,
Missouri Young Farmer Organization., Columbia, MO
- Lupo, A.R., The Science of Drought and Flood Prediction, 2013 Outlook 1 February, 2013, A
LOT Learning Conference, Columbia MO.
- Lupo, A.R., The Science of Drought and Flood Prediction. The 4th Symposium for Agroforestry,
9 January, 2013, Columbia, MO. Presented same talk in Hannibal and Maryville the same
week at the invitation of Channel Seeds / Monsanto.
- Lupo, A.R., The Science of Climate and Climate Change. A seminar given for the Department
of Physics Saturday Morning Science Series. 3 November 2012. Columbia, MO.
- Lupo, A.R., Blocking and Climate Studies at the University of Missouri. 11-12 September, 2012,
Ames Iowa.
- Lupo, A.R., *Extreme Events: Hurricanes and the Russian drought of 2010*. 21-23 May, 2012,
Chicago, IL, Seventh International Conference on Climate Change.**
- Lupo, A.R., *Global Warming: Attribution, who is to blame?* 19 January, 2012, Omaha, NE
Chapter of the AMS
- Lupo, A.R., *Global Warming: Attribution, who is to blame?* 19 January, 2012, Omaha, NE
Chapter of the AMS
- Lupo, A.R., “Interannual and Interdecadal Variability and the outlook for Summer 2012. A
presentation given to the Callaway County 88th Soils and Crop Annual Producers Conference. 17
January, 2012.
- Lupo, A.R., “Interannual and Interdecadal Variability and the outlook for Summer 2012. A
presentation given to the MO – AG Winter Convention (A regional Business of Agriculture
meeting), 11 January, 2012.
- Lupo, A.R., “Climate change, long range forecasting and Agriculture.” A presentation given to
the University of Missouri Chapter of the Farm Bureau. Ag week. 22 September, 2011.

Lupo, A.R., “Summer season drought in the European part of Russia: Climate and Dynamics”. A presentation given to the Russian Academy (A.M. Obukhov Institute). 25 October 2011.

Lupo, A.R., “The climatologic and dynamic character of blocking”. A presentation given to Belgorod State University. 3 November 2011.

Lupo, A.R., “Summer season drought in the European part of Russia: Climate and Dynamics”. A presentation given to Belgorod State University. 3 November 2011.

Lupo, A.R., and P.S. Market: *Tornado Talk*. A presentation given to the MU Chapter of Sigma Xi, Science Café. 15 June, 2011

Lupo, A.R., *Tornado Talk*. A presentation given to the Boone County GOP. 7 June, 2011

Lupo, A.R., *The climatological and dynamic characteristics of blocking*. 23 February, 2011. A presentation given at the State University of New York at Oswego Chapter of the AMS. .

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 23 February, 2011, Faculty and students of the State University of New York at Oswego. Oswego, NY .

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 11 February, 2011, A LOT Learning Conference, Columbia MO.

Motavalli, P.P. and Lupo, A.R., 2011: *Ethics and Professionalism in Soil, Enviromental, and Atmospheric Science*. Feb 7, 2011. (10%)

Lupo, A.R., *Interannual and Interdecadal Variability in Missouri Region Climate*. 5 November, 2010: College of Engineering Sustainable Energy Graduate Student Seminar Series.

Lupo, A.R., *Interannual and Interdecadal Variability in Missouri Region Climate*. 20 October, 2010: College of Engineering Sustainable Energy Seminar Series.

Lupo, A.R., *The climatological and dynamic characteristics of blocking*. 21 September, 2010. A presentation given at the A.M. Obukhov Institute of Atmospheric Physics, Russian Academy of Sciences, Moscow, Russia.

Lupo, A.R., *Interannual and Interdecadal Variability in Missouri Region climate*. 27 – 31 July, Annual Crop Injury and Diagnostic Clinic. Columbia, MO 65211 (2 presentations).

Lupo, A.R., *Global Climate Change: A skeptical point of view*. 16 July, 2010, Annual Meeting of Advancing Renewable Energy in the Midwest. Columbia, MO.

Lupo, A.R., *Chaos Theory and Predictability*. 15th June, 2010, Boulder CO, COMET / NWS continuing education presentation (COMAP – program) (4 hrs).

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 26 April, 2010, Annual Meeting of the Associated Electric Cooperatives of Missouri, Jefferson City, MO.

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 19 April, 2010, Jackson Weather Service Forecast Office (JAN WFO), Jackson, MS

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 19 April, 2010, Jackson State University, Jackson, MS, Department of Physics and Meteorology Seminar.

Lupo, A.R. *Presentation of Not Evil Just Wrong* 15 February, 2010, Columbia, MO, Omega Chi Epsilon, the Honor Society of Chemical Engineers.

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 11 February, 2010, Macon, MO, Macon Regional GOP

Lupo, A.R. *Presentation of Not Evil Just Wrong* 22 January, 2010, Fayette, MO, Howard County Electric Cooperative.

Lupo, A.R., *Presentation of Not Evil Just Wrong* 15 December, 2009, Columbia, MO, University of Missouri.

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 14 December, 2009, Linn, MO, Linn State Technical College auditorium

Lupo, A.R., *Hurricanes: The Evil Wind*. Lecture given to teachers at the 2nd NWA Teaching Summit. 21 October, 2009, Norfolk, VA.

Lupo, A.R.,: August 13, 2009, Scientists for Truth, “Debunking Climate Change Myths”.

Lupo, A.R.,: *Global Warming: Attribution, who is to blame?* A presentation Show-Me Institute of Missouri. 1 June, 2009

Lupo, A.R., *Interannual Variability of Temperatures*. 24 April, 2009, Linn, MO, Linn State Technical college auditorium

Lupo, A.R., *Drought in the Midwest*. A SUPB Kemper Lecture Series talk for the University of Missouri, Memorial Union 9 April, 2009.

Lupo, A.R., *Interannual Variability of Temperatures*. 8-10 March, 2009, New York, NY, Second International Conference on Climate Change.

Lupo, A.R.,: *The Climatology of Winter Weather in Mid-Missouri*. November 18, 2008, Winter Weather Workshop sponsored by The University of Missouri Chapter of the American Meteorological Society

Lupo, A.R.,: *Global Warming: Attribution, who is to blame?* A presentation to the business and

industry leaders of Missouri. 18 November, 2008

Lupo, A.R., *Global Warming: Attribution, who is to blame?* The Kansas City Area Chapter of the American Meteorological Society. 11 November, 2008

Lupo, A.R., *Global Warming: Attribution, who is to blame?* A seminar given for the Department of Physics Saturday Morning Science Series. 1 November 2008

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 3 October 2008, Springfield, MO – MU extension seminar.

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 2 October 2008, Lamar, MO – MU extension seminar.

Lupo, A.R., *Anthropogenic Global Warming: A Skeptical point of View*. June 2008 – (A slide presentation based on the paper). I was invited to upload this to www.slideworld.org a digital library managed by the Medical Sciences.

Lupo, A.R., *Warming: Attribution, who is to blame?* 26 January 2008, Jefferson City, MO - MU Regional meeting of the FFA.

Lupo, A.R., *An Overview of Quasi-Geostrophic Theory*. A presentation to the National Weather Service, 2007 Winter Weather Workshop, Pleasant Hill, MO, 29 October 2007.

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 25 October 2007, Cape Girardeau, MO – MU extension seminar.

Lupo, A.R., *Global Warming: Attribution, who is to blame?* April 2007, Sedalia, MO – MU extension seminar.

Lupo, A.R., *Global Warming: Attribution, who is to blame?* 18 April, 2007, East Central College Seminar (college wide).

Lupo, A.R., *Climate Change and Weather*. 17, March, 2007, Hillsboro, MO Regional Soil and Agriculture

Lupo, A.R., *Interannual and interdecadal variability in the predominant Pacific Region SST anomaly patterns and their impact on a local climate*. 30 January, 2007, Creighton University, Omaha, NE.

Workshops Presented

Burkhardt, J.P., A.R. Lupo, and E.K. Gilliland, 2003: Planetary and Synoptic Scale Interactions in Southeast Pacific Blocking Using Potential Vorticity Diagnostics. The 12th Cyclone Workshop, 21-26 September, Val Morin Canada. (100%)

Working Groups Membership

Working Group I, IPCC Second Assessment Report 1995

Working Group I, IPCC Third Assessment Report 2001

Working Groups I, and III, IPCC Fourth Assessment Report 2007

Working Group on Predictability and Dynamics: THORPEX, 2006: IG6, Atmospheric blocking, low-frequency variability, and their role in predictability.

American Meteorological Society Working Groups:

Member, Network of Networks, Ad Hoc Committee – Metadata (2009-2010)

Member, Ad Hoc Committee on Uncertainty in Forecasts (ACUF) (2009-2010)

Workshops and Workshops Chaired (only those since 2007 shown – 23 total)

- Advisor (with Dr. Neil I. Fox and Mr. Jay Hasheider): “The 3rd Conference on Renewable Energy in the Mid-West”, 25 March 2008, Ames, IA
- **(By invitation only) Forum on Climate Change sponsored by George C. Marshall Institute, September 14- 16, 2008 Washington, DC.**
- **Session Moderator. 8-10 March, 2009, New York, NY, Second International Conference on Climate Change.**
- **Invited to the National Weather Service: “Decade-long Drought and Wet Periods in the Missouri River Basin”, April 27-28, 2009.**
- Attended the Regional Mesonet workshop representing MU and sponsored by Saint Louis University Earth and Atmospheric Sciences. Saint Louis, MO, 15 - 16 April, 2009.
- Co-Chair (with Dr. Neil I. Fox, P.J. Wilson, and Mr. Jay Hasheider): “The 4th Conference on Renewable Energy in the Mid-West”, 3 June 2009, Columbia, MO
- Chair of the [Session on Data Assimilation: Profiling and satellite data assimilation](#) at the *The 21st Conference on Weather Analysis and Forecasting (AMS-NWA)*, 1-4 June, 2009, Omaha, NE.

- Co-Chair (with Dr. Neil I. Fox, P.J. Wilson, and Mr. Jay Hasheider): “The 5th Conference on Renewable Energy in the Mid-West”, 19 May 2010, Columbia, MO
- Co-Chair (with P.J. Wilson, Mr. Frank Cunningham, and Mr. Jay Hasheider): “The 6th Conference on Renewable Energy in the Mid-West”, 30 March 2011, Columbia, MO
- **Invited to attend the Nutrient Management for Water Protection in Highly Productive Systems of the Heartland, Nebraska City, NE 8 – 10 June, 2010.**
- Co-Chair (with P.J. Wilson, Mr. Frank Cunningham, and Mr. Jay Hasheider): “The 7th Conference on Renewable Energy in the Mid-West”, 26 March 2012, Columbia, MO
- **Co-Chair (with T. Johnson, D. Day, V. Likholetov, and R. Reed): “Climate Change: Gaining the Advantage”, 6-8 June 2012, Columbia, MO**
- Chair of the committee: “The 48th Annual Meeting of the Missouri Academy of Science”, 13-14 April, 2012, Columbia, MO
- Co-Chair (with P.J. Wilson, Mr. Frank Cunningham, Tim May, and Mr. Jay Hasheider): “The 8th Conference on Renewable Energy in the Mid-West”, 28 March 2013, Columbia, MO
- Co-Chair (with P.J. Wilson, Mr. Frank Cunningham, Tim May, and Mr. Jay Hasheider): “The 9th Conference on Renewable Energy in the Mid-West”, 8 April 2014, Columbia, MO

Book, Proposal, Product, and Manuscript Reviews

For scholarly journals, the number of reviews is given in parenthesis.

Book, Book Chapter, and Report Reviews

Climate Change 1995: The Science of Climate Change, Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change. Edited by: J.T. Houghton, L.G. Miera Filho, B.A. Callander, N. Harris, A. Kattenberg, and K. Maskell, Cambridge University Press, Cambridge, UK. 572 pp.
ISBN: 0 – 521 – 56436 - 0

Climate Change 1995: The Science of Climate Change, Summary for Policymakers and Technical Summary of the Working Group I report.

Climate Change 2001: The Science of Basis, Contributions of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change. Edited by: J.T. Houghton, Y. Ding, D.J. Griggs, M. Noguer, P.J. van der Linden, X. Dai, M. Maskell, C.A. Johnson. Cambridge University Press, Cambridge, UK. 881 pp.
ISBN: 0-521-01495-6

Climate Change 2001: The Science of Climate Change, Summary for Policymakers and Technical Summary of the Working Group I report.

Climate Change 2001: The Scientific Assessment of Climate Change Synthesis Report.

Greenhouse Gas Emissions Action Options Report – Draft: 2002: A Report synthesized by the Missouri Department of Natural Resources Energy Center (Authored by Mr. John Noller, Energy Planner). (I was asked to review this report on 12 June, 2002 and replace the retired Dr. Ernest Kung on the DNR steering committee for Greenhouse Gasses)

Frasier Institute, 2007: Independent Summary For Policy Makers of the text of the IPCC Fourth Assessment Report (January 2007)

Heartland Institute, 2009: Climate Change Reconsidered: The Report of the Nongovernmental International Panel on Climate Change (NIPCC), edited by Craig Idso, Ph.D., and S. Fred Singer, Ph.D. (released 2 June 2009)

US Climate Action Report, 2010: Fifth National Communication of the United States of America Under the United Nations Framework Convention on Climate Change, reviewed for the Heartland Institute.

Heartland Institute, 2013: Climate Change Reconsidered II: The Report of the Nongovernmental International Panel on Climate Change (NIPCC), edited by Craig Idso, Ph.D., and S. Fred Singer, Ph.D. (released 28 August 2013)

Climate Change 2013: The Science of Basis, Contributions of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.
<http://www.ipcc.ch...>

****Note:** The IPCC scientists shared the Nobel Peace Prize as announced on October 12, 2007 with Mr. Albert Gore Jr. from the USA.

Greenhouse Gas Emissions Action Options Report – Draft: 2002: A Report synthesized by the Missouri Department of Natural Resources Energy Center (Authored by Mr. John Noller, Energy Planner). (I was asked to review this report on 12 June, 2002 and replace the retired Dr. Ernest Kung on the DNR steering committee for Greenhouse Gasses)

Climate Change Science Program Synthesis and Assessment Product, "North American Carbon Budget and Implications for the Global Carbon Cycle".

- Cornwall Alliance (Jan 2010): A renewed Call to Truth, Prudence, and Protection of the poor: An Evangelical examination of the Theology, Science, and Economics of Global Warming. (Chapter 2 primarily) 76pp

- American Meteorological Society Commission on the Weather and Climate Enterprise Board on Enterprise Communication A Weather and Climate Enterprise Strategic Implementation Plan for Generating and Communicating Forecast Uncertainty Information (Jan 2010) 112 pp.
- o McGraw-Hill Publishing: September 2003, asked to review Chapter 10 (Circulations on Many Scales and their Interactions) of Meteorology, 2nd Ed. (Danielson, et al.). I was given an honorarium for this work.
- o Prentice Hall Publishing: September 2002, 2004 asked to Review Understanding Weather and Climate, 3rd Ed. and 4th ed. (E. Aguado and J.E. Burt). I was given an honorarium for this work.
- o Galarneau, T.J, L.F. Bosart, and A.R. Aiyer, 2005: A 54-year global closed anticyclone climatology (1950 – 2003). AMS Meteorological Monograph, 94 pp.

Book Proposal Review

- o John Wiley and Sons, Inc., proposing a new introductory text to be published for 2004. I was asked by a representative of John Wiley and Sons to review the book proposal. I was given an honorarium for this work.
- o McGraw-Hill Publishing: September 2003, asked to review a book chapter. I was given an honorarium for this work.
- o Moran Publishing: January 2007, asked to review material for a book chapter. I was given an honorarium for this work.
- o W.H. Freeman & Company: October 2013, asked to review Molles 3rd Draft ch 07 Terrestrial Resources book chapter. I was given a \$125.00 honorarium for this work.

Paper Reviews including those for scholarly journals (number if greater than 1)

Reviewed papers for more than 35 different journals including journals outside meteorology, and over 300 articles..

- Intergovernmental Panel on Climate Change Working Group I Technical Papers 1,2,3, and 4.
- *Monthly Weather Review*
- *Journal of the Atmospheric Sciences*
- *Tellus* (Swedish Meteorological Society)
- Quarterly Journal of the Royal Meteorological Society
- *Journal of Geophysical Research* (American Geophysical Union)

- *Geophysical Research Letters* (American Geophysical Union)
- *Journal of Arid Environments* (Cambridge Press))
- *Journal of the Meteorological Society of Japan*
- *National Weather Digest*
- *Journal of Climate*
- *International Journal of Climatology*
- *Journal of Applied Meteorology*
- *Weather Analysis and Forecasting*
- *Meteorological Monograph*
- *Doklady, Earth Sciences* (Russian Academy of Sciences)
- *Pure and Applied Geophysics*
- *Transactions of the Missouri Academy of Science*
- *Journal of Global and Planetary Change*
- *Paper for the Fraser Institutes, IPCC AR4 analysis series on Natural Variations.*
- *Geological Society of America*
- *Atmospheric Science Letters*
- *Electronic Journal of Severe Storms Meteorology*
- *Heat Transfer Engineering, An International Journal*
- *International Journal of Tourism*
- *Evidence-based Climate Science volume*
- *Advances in Meteorology.*
- *Atmospheric Environment*
- *International Journal of Hydrological Science and Technology (IJHST)*
- *International Journal of Biometeorology*
- *Philosophical Transactions of the Royal Meteorological Society*
- *Dataset papers in Atmospheric Science (Hindawi)*
- *Nature Publication Group Geosciences*
- *Science PGReview*
- *Meteorological applications.*
- *Applied Geography Conference*
- *Atmosfera*
- *Central European Journal of Physics*
- *Papers for the 36th Conference on Applied Geography*
- *Dynamics of Oceans and Atmospheres*

Proposal Reviews (number if more than 1)

- Proposal review for National Science Foundation: Blocking Anticyclone development, Coastal Fronts, Climatology of Low Level Jets (3)
- Proposal review: Agricultural Experiment Station proposals (2)
- Proposal Review: Southwest Center for Environmental Research and Policy (1)

- Proposal Review: MU Alumni Association Incentive Grants Program (2nd Cycle 2002, 20)
- Proposal Review: Missouri Research Board (1)
- Proposal Review: Research Council (1)
- Proposal review(s): For the Fulbright Scholar Office in Russia, reviewed proposals from Russian Scholars wishing to come to the US, 2007, 2008, 2009, 2010
- Proposal Review: NOAA – NWS “*Wind Chill: An Accurate and Complete Theoretical Model With Experimental Verification*”
- Proposal Reviews for CRDF – (8) November 2010 (\$250.00 honorarium)
- Reviewed proposal: served as an outside reviewer for LSU internal grants. (Jan. 2012)
- Reviewed proposal for CRDF (1) September 2013 for \$50.00 honorarium.
- Reviewed (Invited) Conrad Foundation, Spirit of Innovation Awards November 2013 (no proposals in my category).
- Global Innovation Initiative Proposals 2014 (10 January 2014). Energy, Climate Change, and the Environment category. (22 proposals)

Product Reviews

July - August 2000: Reviewed the Kestral 3000, a hand held temperature, wind, and humidity instrument, and commented on it's suitability for use in hurricane research.

Consulting work

- 2006: Reconstructed the synoptic and mesoscale events surrounding the Blue Mound, MO tornado of 20 June 1883. <http://www.bluemoundhistory.com/tornado.htm>
- 2004, 2006, 2008: Hired to provide expert testimonial: Law Offices of Schreimann, Rackers, Francka & Blunt, L.L.C. (Jefferson City).
- 2006: Hired to provide expert testimonial: Law Offices of Robert J. Hayes (Saint Louis).
- Hired by ORNES, Engineering, LCC, as a consultant for an SBIR proposal.
- September – December 2007: hired to provide expert testimonial: Law offices of Lathrop and Gage. Provided 31 hours of consulting - deposed and testified for the defense which won on all counts.

- November 2007 – present: hired by Mac Guire – Woods (Richmond, VA) to provide expert testimonial.
- June 2008 – present: hired by the Shook, Hardy and Bacon Law Firm (provided 24 hours of consulting thus far.)
- July 2009 – present: Hired by the Benson Law Firm, LLC, Kirksville MO, for expert testimony.
- Invited to join; “Round Table Group, the Expert Witness Search and Referral Firm”, a Washington, DC based group of expert witnesses and consultants.
- 2010: Hired to provide expert testimony by the Troy County, MO public defender. Testified 12 May, 2010.
- 2010 Hired by Ford, Parshall, and Baker, for Expert testimony October
- 2010 Hired by Horn, Aylward, and Bandy, LLC for Expert Testimony, November
- Heartland Institute hired as a consultant (Lead Author) for Modelling Chapter 2011-2013.
- 2012 Hired by Pedroli and Associates (Saint Louis, MO).
- 2013 Hired by the State of Alaska as a climate modeling expert.
- 2013 Hired by Ford, Parshall, and Baker, Columbia, MO as a climate expert
- 2014 Provided expert support to Rep Tim Remole for H.B. 1302.

GRADUATE STUDENTS MENTORED

All graduated students have been at least partially supported by grants I have received (See grants obtained under Research Scholarship) or Teaching Assistantships.

Graduate Committees

I have served as an advisor on additional graduate committees in the atmospheric science program.

I have currently one student (one M.S. / no Ph.D.) and 22 have graduated (17 M.S. / 5 Ph.D)

Graduate Student	Degree	Year	Current Status
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Cynthia L. Berger	MS	1999 ¹	Broadcast Meteorologist, Ag Day Television, South Bend, IN
Jason Wiedenmann	MS	1999 ¹	Chemistry Instructor / Los Angeles Area Community College / PhD student at USC (Environmental Engineering)
Matthew Chambers	MS	2002 ^{1,3,5}	Candidate / Broadcast Meteorologist, KMOV-4 Saint Louis, MO
Nassar Albaloushi	MS	2001 ²	Candidate (funded by the Government of the United Arab Emirates)
John Burkhardt	MS	2003 ¹	Not employed in Atms. Sci.
Zabani Zuki	MS	2004 ¹	Malaysian Weather Service / Administrator.
W.Christopher Maune	MS	2006 ^{1,4}	Law Degree from MU – J.D. / Working in STL Law firm
Andrew Kunz	MS	2005 ¹	Science journal technical editor
Patrick Guinan	PhD	2004 ¹	Missouri State Climatologist
Mandi Reagan	M.S.	2007 ^{1,5}	Working for Env. Sci firm in St. Louis, MO
Kevin Birk	M.S.	2006 ¹	NWS BIS – Oct 2006
Ben Roudenis	M.S.	2006 ⁵	M.S. Student – Not in Meteorology
Melissa Chesser	M.S.	2010 ¹	Working for Dept of Defense
Rachel (Fay) Redburn	M.S.	2007 ^{1,6}	Wind Capital Group (Mr. Tom Carnahan).
John Burkhardt	Ph.D.	2008 ⁵	Not in Meteorology
Justin Glisan	M.S.	2007 ¹	Ph.D. Student – Iowa State University
Athar Hussain	Ph.D.	2008 ¹	Assistant Professor – Saudi Arabia
Neville Miller	M.S.	2008 ^{1,5}	(current) M.S. student – TV meteorologist, SC
J. Michael Roberts	M.S.	2013 ¹	(current) M.S. Student – KRCG Chief Meteorologist, Jefferson City, MO

Shawn Riley	M.S.	2010 ¹	(current) MU-IT. / Barron Meteorology
Eric Weber	M.S.	2009 ¹	(current) Ph.D.
Chris Halcomb	Ph.D.	2010 ^{1,6}	(current) Ph.D. student
Mohd. Hisham Anip	Ph.D.	2012 ¹	Malaysian Weather Service
Justin Abraham	M.S.	2012 ¹	(current) – KMIZ TV 17
Eric Aldrich	M.S.	2011 ¹	(current) – KOMU TV 8
Michelle Bogowith	M.S.	2011 ¹	(current) – TV Channel 41 in Kasas city (FOX)
Erik Oberhaus	M.S.	2012 ³	
Eric Weber	Ph.D.	2012 ^{1,6}	Ph.D. Working in the Private Sector
Isabela Carlos	Ph.D.	2014 ^{1,6}	Ph.D. Student
Rose Grace Newberry	M.S.	2014	KOMU chief Meteorologist
Andrew Jensen	Ph.D.	2014 ¹	Post Doc
Nick Ebner	M.S.	2013 ¹	Done
Daniel Ebner	M.S.	2013 ¹	KRCG, Jeff City, MO
Ralph Johnson	Ph.D.	2015	
Jordan Rabinowitz	M.S.	2016	

¹ Expected or final graduation date.

² Called for military duty August 2000. He likely will not return.

³ Matt was nominated for and won an Outstanding Graduate Achievement Award (Sponsored by GSA) in March 2001.

⁴ Expelled from the Graduate School due to insufficient grades. Student will likely not return.

⁵ Did not graduate.

⁶ I co-advised Rachel, Chris, and Eric with Dr. Neil I. Fox.

Postdoctoral Research Associates Supervised / Visiting Scientists Hosted

Postdoctoral	Degree and Year	University	Current Status
Dr. Ali Deniz	Ph.D / 1997	Technical Univ. of Istanbul	Assoc. Prof. at ITU
Dr. Courtenay Strong	Ph.D. 2005	University of Virginia	Assistant Prof. Utah Univ
Dr. Andreas Ravelo	Ph.D. 1985	University of Cordoba, Argentina	Professor at home institution.
Dr. Athar Hussain	Ph.D. 2008	University of Missouri	Assoc. Professor Pakistan

Graduate Committees

I have served as an advisor on additional graduate committees in the atmospheric science program, across MU, and outside MU.

Graduate Student	Degree	Year	Dept, Institution, advisor
Haldun Karan	MS	1999	SEAS – MU – Mudrick
Chris Halcomb	MS	2001	SEAS – MU – Market
Chris Ratley	PhD	ABD	SEAS – MU - Kung
Stacey Allen	MS	2002	SEAS – MU – Market
Martin Baxter	MS	2003	Atms. Sci – St. Louis U. – Graves
Elizabeth (McCoy) Hatter	MS	2003	SEAS – MU – Fox
Angela Oehl	MS	2003	SEAS – MU – Market
Mustafa Coskun	PhD	2003	SEAS – MU Mudrick
David Barriopedro-Cerpero	PhD	2007	Physics – U. Madrid – Herrera

Christopher Melick	PhD	2008	SEAS – MU – Market
Rebecca Ebert	MS	2004	SEAS – MU – Market
Steven Lack	PhD	2008	SEAS – MU – Fox
Brian Pettegrew	PhD	2008	SEAS – MU – Market
Rahul Gunda	MS	2005	Elec. Eng. – MU – Islam
Bun- Liong Saw	MS	2005	SEAS – MU – Fox
Md. Hisham Anip	MS	2005	SEAS – MU – Market
Larry Smith	MS	2006	SEAS – MU – Market
William T. Gilmore	MS	2007	SEAS – MU – Fox
Stephen Markley	MS	2009	Geography – MU – Cowell
Mike Stambaugh	PhD	2008	Forestry – MU – Guyette
Jamie Moker	MS	2010	SEAS – MU – Market
Amy Schnetzler	MS	2008	SEAS – MU – Market
John Kahl	PhD	2010	Mathematics – MU – Dostoglou
Ali Koleiny	MS	2009	SEAS – MU – Fox
Katie Crandall	MS	2010	SEAS – MU – Market
Dannah Schaffer	PhD	2011	Science Education – MU – Barrow
Michael Folmer	PhD	2011	Atms Sci – SLU – Pasken
Oluseun S. Idowu	PhD	2012	Geosci/Math/Statistics – UMKC – Adegoke
Gregory Varner	PhD	2012	Mathematics – MU – Dostoglou

Robert Gastler	PhD	2012	Mathematics – MU – Dostoglou
David Roache	PhD	2013	Geography – University of South Florida – Collins
Christopher A. Saunders	M.S.	2012	Journalism – MU - Wilkins
Neus Vila Brunet	Ph.D	2014	Agricultural Economics – MU - Johnson
Kelly Scott	M.S.	2012	Atmospheric Science – Saint Louis University - Eichler
Nathan Madden	Ph.D.	2013	Political Science - Kaiser
Anh Nguyen	Ph.D	2015	Ag. Engineering (Thompson)
Adam Balbi	MS	2013	SEAS-MU-Fox
Joshua Kastman	MS	2013	SEAS – MU Market
Quinn Pallardy	MS	2013	SEAS MU Fox
Michael Simpson	MS	2014	SEAS MU Market

Undergraduate / Secondary Education Students Mentored (50+):

Undergraduate Scholarship/Project Mentoring

I have served (or am currently serving) as an undergraduate scholarship mentor for ten \$1,000.00+ awards given by the College of Agriculture, Food, and Natural Resources. These papers are presented at a CAFNR sponsored poster session and reception in the Memorial Union in May. Also, the undergraduate papers have been (or will be) presented at the Missouri Academy of Sciences. I have also mentored students in secondary education.

Most undergraduate mentors have been co-authors on AMS and NWA conference presentations, and some have co-authored papers.

TEACHING

Summary of Student Teaching Evaluations

Semester	Course Number ¹ (credits)	No. of Students	Number Evaluating	Course GPA	Evaluation Average ²	SNR Average ^{2,6}
F 97	ATM 350 (3)	14	13	3.71	4.8	3.9
Sp 98	ATM 301 (3)	10	9	3.9	4.0	
	ATM 102 (1)	23	20	3.66	4.6	
F 98	ATM 394 (4)	20	17	3.53	4.0	3.9
	ATM 312 (3)	31	25	3.33	4.3	
Sp 99	ATM 395 (4)	20	14	3.48	3.9	
	ATM 50 (3)	185	80	2.89	3.5	
	ATM 102 ³ (1)	22	18	3.60	4.7	
	ATM 301 (3)	13	12	3.9	4.3	
F 99	ATM 50 (3)	138	66	2.68	3.7	4.1
	ATM 416 (3)	6	4	4.0	3.5	
Sp 00	ATM 102 ³ (1)	24	23	3.6	3.6	
	ATM 395 (4)	2	1	3.0	4.5	
	ATM 399 (3)	11	11	3.51	4.4	
	ATM 466 (3)	2	2	4.0	5.0	
	ATM 410 ⁴ (1)	0	0	0	0	
F 00	ATM 50 (3)	156	95	2.95	4.2	4.0
	ATM 385 (3)	12	7	3.33	4.4	
	ATM 394 (4)	21	13	3.06	4.4	
Sp 01	ATM 102 ³ (1)	42	37	3.6	4.5	
	ATM 395 (4)	19	14	3.08	4.8	
	SAS 410 (1)	6	1	4.0	4.0	
	ATM 412 (3)	2	2	3.0	4.5	
F 01	ATM 50 (3)	203	62	3.24	4.6	3.9
	ATM 200 ⁵ (3)	6	0	3.33	0	
	ATM 394 (4)	14	11	3.19	4.5	
	ATM 416 (3)	4	4	3.75	5.0	
Sp 02	ATM 395 (4)	12	9	3.69	4.8	
	ATM 399 (3)	21	16	3.33	4.1	
	SAS 410 (1)	7	3	4.0	4.3	
	ATM 466 (3)	2	2	4.0	5.0	
F 02	ATM 385 (3)	23	19	3.62	4.1	3.9
	ATM 394 (4)	14	11	3.23	4.5	
Sp 03	ATM 50 ⁷ (3)	308	5	2.99	3.4	
	ATM 395 (4)	19	13	3.47	4.4	
	ATM 412 (3)	4	4	3.5	4.5	
F 03	ATM 385 (3)	16	11	3.62	4.3	3.9
	ATM 394 (4)	21	15	3.54	4.7	
	ATM 416 (3)	6	6	3.5	4.5	
Sp 04	ATM 50 ⁷ (3)	300	24	3.0	4.1	
	ATM 395 (4)	20	17	3.49	4.6	

	ATM 399 (3)	27	22	3.69	4.4	
	ATM 466 (3)	3	3	3.66	4.0	
F 04	AT 4310/7310 (4)	13	10	3.36	4.2	4.1
	AT 4800/7800 (3)	18	16	3.59	3.6	
	ATM 9300 (3)	8	6	3.75	4.2	
Sp 05	ATM 1050 ⁷ (1)	292	7	3.16	4.1	
	ATM 3600 (3)	54	N/A	N/A	N/A	
	AT 4320/7320 (4)	16	9	3.50	4.3	
	ATM 9350 (3)	7	7	3.57	4.4	
F 05	AT 4310/7310 (4)	26	20	3.38	4.3	4.1
	AT 4800/7800 (3)	18		3.65	4.0	
	ATM 8400 (3)	6		3.33	4.5	
	Math 8702 ⁹ (3)	8	N/A	N/A	N/A	
Sp 06	AT 3600 (3)	42		3.48	4.3	
	AT 4320/7320 (4)	25		3.28	4.3	
	AT 4650/7650 (3)	18		3.31	4.4	
	AT 8600 (3)	5		3.60	4.5	
	Math 8702 ⁹ (3)	10	N/A	N/A	N/A	
F06	AT 4310/7310 (4)	15	10	3.43	4.4	4.1
	AT 4800/7800 (3)	13	5	3.60	4.6	
	AT 9300 (3)	7	6	3.86	4.7	
Sp 07	AT 3600 (3)	52	38	3.43	4.2	
	AT 4320/7320 (4)	13	10	3.56	4.6	
	AT 9350 (3)	5	5	3.80	4.8	
F 07	AT 4310/7310 (4)	25	20	3.26	4.5	
	AT 8001/8450 (3)	6	2	4.0	4.4	
	AT 8400 (3)	8	5	4.0	4.2	
Sp 08	AT 3600 (3)	72	45	3.71	4.5	
	AT 3000 (3)	2	2	3.84	N/A	
	AT 4320/7320 (4)	22	11	3.49	4.7	
	AT 8600 ⁸ (3)	1	1	4.0	5.0	
F 08	AT 4310/7310 (4)	15	11	3.33	3.9	
	AT 3000 (3)	2	2	4.00	N/A	
	AT 9300 (3)	5	4	3.40	3.5	
Sp 09	AT 3600 (3)	67	37	3.23	3.4	
	AT 4320 (4)	15	9	3.26	3.5	

F 09	AT 4310/7310 (4)	12	8	3.30	3.7	3.4
	AT 8400 (3)	6	5	4.00	3.6	
Sp 10	AT 3600 (3)	77	50	3.26	3.3	3.4
	AT 4320 (4)	12	9	3.03	3.6	
	AT 8450	11	10	3.81	3.7	
F10	AT 4310/7310 (4)	19	15	3.35	3.8	3.5
	AT 4650/7650 (3)	19	14	3.62 / 4.0	3.1	
	AT 7800 (3)	3	3	3.33	N/A	
S 11	AT 3600 (3)	75	62	3.56	3.4	
	AT 4320 (4)	21	17	3.43	3.6	
	AT 9350 (3)	5(6)	5	3.2	3.6	
F 11	AT 4310	22	15	3.65	3.9	
	AT 4800/7800	24	22	3.72	3.3	
	AT 8600	4	3	3.5	3.7	
S12	AT 4320/7320	25	19	3.50	3.6	
	AT 3600	74	57	3.10	3.5	
	AT 8450	10	10	3.80	4.0	
F 12	AT 4310 / 7310	8	5	3.14	3.6	
	AT 9300	8	7	3.86	3.7	
S 13	AT 3600	76	55	3.09	3.7	
	AT 4320	4	5	3.13	3.6	
	AT 9350	7	5	3.29	4.0	
Su -2013	AT 1050	20	20	3.1	3.2	
F 13	AT 4310	16		3.49	3.5	
	AT 4650/7650	31		3.44	3.4	
	AT 8400	5		4.0	3.8	
S14	AT 4320/7320	14		3.52		
	AT 8450	3		3.33		
Su 14	AT 7085					
F 14	AT 8400 / BGU					
	AT 8600					

¹This class list does not include ATM 200 described above.

²Is the overall teaching effectiveness under the general evaluation. This number is the total out of a possible total of 5 points, 5 being highest. Starting in Fall 2008, this number was out of a total of 4.0, 4 being the highest.

³In this course, the lecture materials were designed by myself. A teaching assistant delivered the lectures and gave the grades.

⁴For this class I assisted Dr. Diann Jordan. This class was offered for the first time as a joint Soil and Atmospheric Science Seminar class. I was learning how this class is run.

⁵ I offered an independent study section of Atms 385, Numerical Methods in the Atmospheric Sciences for students who wanted to take this course before they missed their chance when we went to a biennial offering.

⁶The SNR average is obtained from the Assessment Resources Center on campus up to Fall 2002 and is the academic year average corresponding to the same number described in footnote 2 above. After Fall 2002, the number comes from the SNR Academic Programs Office. The average is for all SNR classes taught.

⁷Represents three semesters of large lecture classes when I'd asked for evaluations and made them voluntary. I didn't get an "overwhelming" response.

⁸This was offered independent study to the one graduate student.

⁹ I team taught this with Dr. Stamatis Dostoglou, Mathematics. My role was to advise him on meteorological applications.

Invited Teaching, Workshops, and Presentations

Classes in the School of Natural Resources

- *Atmospheric Blocking*, Lecture for ATM 366 Climates of the World (April 98)
- *Ozone Depletion in the Stratosphere*, Lecture Natural Resources (NRES) 160 (Dec. 98, 99).
- *Climate, climate change, and the human component*, Lecture for NRES 160 (Dec. 98, 99, 00, 01,02).
- *Atmospheric Air pollution*, Lecture prepared for NRES 160 (Dec. 2000).
- *On global warming*, Lecture prepared for Dr. Mark Ryan (Mar. 7, 2001)
- *Severe weather and tornadoes*, Lectures prepared for NRES 160 (December 2003, 2004)
- *The Santa Anna winds and their contribution to the fires of 2007* (Lecture prepared for Dr. Keith Goyne, 26 October 2007)

- *Global Warming and Attribution.* (Lecture prepared for Natr 2160 Dr. Bruce Cutter and Dr. H. Garrett, 1 and 8 November 2007, 3 Dec 2008, 3,6 Dec 2010, 4,6 December 2011, 3,5 December 2012, Oct 14, 16, 2013).
- Preparing For Graduate School. Natural Resources Learning Community April 2011
- Acid Rain. Natural Resources Learning Community October 3, 2011 (With Peter Motavalli)
- The USA drought of 2012 and the Russian Drought of 2010. Natural Resources Learning Community October 26, 2012
- Forest Fire Control and Use (FOR 3207) 2 lectures, 2 hrs each Fall 2012 – For Ill Colleague)
- International Opportunities for Study (November 13, 2013 With Peter Motavalli) for Natural Resources learning community)

Classes outside the School of Natural Resources

- *Climate and Climate change in the Midwest.* Geography 410, 8 September, 1999
- *Climate and Climate Change in the Midwest.* Seminar for Law School, 25 October, 1999.
- *The Physics of the Greenhouse Effect.* Two Lectures for (Chemical Engineering), Apr. 00, Aug. 00.
- *Climate and Climate Change in the Midwest.* Lecture Sept. 00. (Political Science 365 Environmental Theory and Politics)
- *Climate Change and Global Warming: The current perspective.* Seminar for Law School Oct. 00.
- *Climate and Climate Change in the Midwest.* Lecture for May 01. (World Food and You.)
- *Advisors are people too.* A short presentation given as part of an "advisors panel" for freshmen. Aug. 01, Sep. 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13 (Learning and Instruction for Freshmen - T42).
- *Climate and Climate Change:* Lecture given to three classes at Linn State Technical College, Soil and Environmental Sciences class. November, 2005, 2006, 2007; April, 2006, 2007, 2008, 2009, (3) 2010.
- *Global Warming and Attribution.* A lecture for General Honors 1070 (Bill Folk 9 February 2009).

- The Zwack Okossi Equation: a derivation and physics. A lecture for Advanced Synoptic Meteorology 9700 (Market – 9 February 2009)
- *Interannual and Interdecadal Variability in Climate*. A lecture given to Climate Theory in the Department of Atmospheric Physics, Moscow State University (22 September, 2010: Dr. Igor I Mokhov, instructor).
- *Climate Change and Global warming*. Lecture for Ag Econ 4990 14 Feb 2012, and 2013. (Jan Dauve)
- *Climate Change and Global Warming*. Lecture for Chem Eng. 4311 11 March 2013,
- *Climate Change and Global Warming*. Lecture for Chem Eng. 4312 12 March 2013.
- Energy: Climate and Climate Change Lecture for Ag. Sys. Management 7085, 7 August 2013.

Teaching Workshops, Lectures, and Presentations

- *Climate and Climate Change, will Missouri be heating up?* A Back-to-classes Lecture prepared for the MU Jefferson Club, 17 September, 1999
- Market, P.S., and A.R. Lupo: *How are the teachers of today preparing the meteorologists of tomorrow?* Presented to: The Kansas City Chapter of the American Meteorological Society 19 September 2001.
- *Clouds in a bottle*: A teaching demonstration prepared for prospective SNR students, 9 November 2001, November 15, 2002, 14 Nov. 2003 (4 - 20 min. demos.)
- *The Chamber*: A teaching demonstration prepared for prospective SNR students, 21 October 2005
- *Introduction to Atmospheric Sciences*: A teaching demonstration prepared for prospective SNR students, 9 November 2001, 15 November, 2002, 14 Nov. 2003 (2 lectures) (50 min. lecture)
- Grigsby, M. E. P. Berg, S.T. Cole, S.K. Freyeremuth, D.E. Lehman, A.R. Lupo, P.S. Market, J.J. Millspaugh, J.L. Parcell, and D.R. Vaught, 2004: MU CAFNR Teaching Scholars Program. (Featured Poster) 14th Program for Excellence in Teaching Teaching Renewal Conference. 26 – 28 February, 2004, Columbia, MO. (10%).
- Lupo, A.R.: *Climate and Climate Change*: Lecture given to Weather Camp Workshop run by Dr. Patrick Market, June 2005.
- Climate, Climate Change, and Hurricanes: Lecture given to Saturday Morning Science group (sponsored by Life Sciences and Physics), Columbia, MO, 11 February 2006.

- Climate, Climate Change, and Hurricanes: Lecture given to Lifelong Learning (Talking about the weather – a 6 week course team taught by Dr. Market, myself and graduate students) – MU Extension, Columbia, MO, 27 April 2006.
- Climate Change: Attribution, who is to blame for global warming? Lecture given to the Life Sciences Policy Forum, 4 October 2006
- Hurricanes: The Evil Wind: Lecture given to teachers at the 1st annual NWA Teaching Summit. 15 October, 2006, Kent State, Kent, OH.
- Climate Change: Attribution, who is to blame for global warming? Lecture given to the Life Sciences Policy Forum, 13 September 2007. I also presented this on November 13 2007 at the Memorial Union for a student sponsored panel along with a showing of “*An Inconvenient Truth*”
- Weather and Climate, a training workshop for Columbia Public Schools. April 2,9,16, and 23, 2008. I presented at the April 9th and 16th sessions. The Atmospheric Sciences Program worked with the Public Schools to get speakers and topics.
- Hurricanes: The Evil Wind: Lecture given to teachers at the 2nd NWA Teaching Summit. 21 October, 2009, Norfolk, VA.
- I presented a Lecture on “*Not Evil Just Wrong*” this on December 15 2009 at the SNR Natural Resources Building along with a showing of the movie “*Not Evil Just Wrong*”
- Climate Change and Attribution: Lecture given to Lifelong Learning (Talking about the weather) – MU Extension, Columbia, MO, 12 April 2010.
- Hurricanes: The Evil Wind: Lecture given to teachers at the 3rd NWA Teaching Summit. 17 October, 2011, Birmingham, AL
- Climate Change and Attribution: Lecture given to Lifelong Learning (Talking about the weather) – MU Extension, Columbia, MO, 3 October 2013.

Teaching Renewal Activities

- Attended the "Greater Expectations: Teaching and Learning and Learning in the College of Agriculture, Food, and Natural Resources" 14 August 2000
- Attended the "Building better teachers and a stronger community, as we better prepare our students for success during the next century." CAFNR Fall Teaching Round-up 2001.
- Attended the “High Impact Teaching”, CAFNR Fall Teaching Round-up 2003.

- Attended “Teaching in a Classroom with a Diverse Population”, CAFNR Fall Teaching Round-up 2004.
- Attended MU Director of Graduate Studies Leadership Summit, “Conflict Resolution Workshop” 13 Sept. 2004.
- Attended the North Central Region Teaching Symposium at Kansas State University, 23 – 25 May, 2005
- Attended the CAFNR Fall Teaching Academy, “Problem Based Learning”, 8 August, 2005.
- Attended the School of Natural Resources Faculty Advisor workshop, 9 August, 2005
- Attended the “Developing Undergraduate Faculty Teaching Partnerships to Enhance Learner Centered Approaches, 13 January 2006.
- Attended the CAFNR Fall Teaching Academy, 10 August, 2006.
- Attended the CAFNR Fall Teaching Academy, *How People Learn – Bridging Research and Practice*, 7 August 2007.
- Invited to represent MU Atmospheric Science at the Math – Meteorology teaching workshop, 22-23 February, 2008. Sponsored by Valparaiso University.
- Attended the CAFNR Teaching Symposium Program, 15 January 2009.
- Attended the CAFNR Teaching Symposium, “Generation Me”, 13 January 2010.
- Attended sessions during the “*Celebration of Teaching Excellence*” workshop 18-19 May 2010.
- Attended sessions during the “*Celebration of Teaching Excellence*” workshop 17-18 May 2011.
- Attended sessions during the “*Celebration of Teaching Excellence*” workshop 15-16 May 2012.
- Attended sessions during the “*Celebration of Teaching Excellence*” workshop 21-22 May 2013.
- Attended sessions during the “*Celebration of Teaching Excellence*” workshop 20-21 May 2014.

SERVICE: Department, School, University, Professional

Dr. Lupo is regularly available to local media (television, radio, and newspaper) outlets for weather information and expert commentary. He has also answered inquiries for media in Kansas City, Saint Louis, and Fort Myers (FL). Also, in addition to giving numerous talks to the general public, various civic organizations, and agricultural groups on topics including El Nino and Southern Oscillation, long range forecasting, global warming, and weather safety, Dr. Lupo has served on various committees at different levels within the University.

Service to Profession, University, College, School, and Department

Memberships and Activity in Academic, Scholarly, and Professional Societies

- American Meteorology Society
 - Associate Editor of Monthly Weather Review 2000 – 2003, and 2007 - present
 - Nominated for Fellow (May 2008)
 - CCM Seal (February 2010)
 - -CCM Board – Feb 2014 – present
 - CBM Broadcast Seals committee
 - Written exams and new questions committee
 - Written Exam committee
 - University Representative, Weather Coalition
 - Member, Network of Networks, Ad Hoc Committee – Metadata
 - Member, Ad Hoc Committee on Uncertainty in Forecasts (ACUF)
 - Member, THORPEX working group 6 (blocking).
 - Member, Climate science communications network that is a project of the University Corporation for Atmospheric Research (UCAR) and the United Nations Foundation (UNF). (Climate Voices)
- National Council of Industrial Meteorologists (2014 – present)
- Sigma Xi Honor Society
 - Elected President (11 April, 2002, reelected 17 April 2003, again 2008-2009)
 - Elected Vice President, University of Missouri Chapter (21 March, 2001, May 2004)
 - Elected Secretary, MU Chapter, May 2005 – 2007, and May 2009-Aug 2009
 - Treasurer Aug. 2009 - present.
- Fellow, Royal Meteorological Society
- Phi Kappa Phi Honor society
- Fellow, Missouri Academy of the Sciences
 - Elected Chair of the Atmospheric Sciences Section (Served 4/2000 – 4/2002)

- Editor 2003-2006, Transactions
 - Vice President 2008- 2009
 - President Elect 2009- 2010
 - President 2010 – 2011
 - Past President 2011-2012
- Member, Gamma Sigma Delta
 - Historian for FY 2004 – 2006
 - President for FY 2003 - 2004
 - Vice President (President Elect) for FY 2002 - 2003
 - Appointed Secretary for FY 2001 - 2002
- American Geophysical Union
- European Geophysical Union
- MU representative on the Board on Oceans and Atmospheres of the National Association of State Universities and Land-Grant Colleges.
- UCAR/UNIDATA Contract Contact point for the University of Missouri (1998 – 2003)
- Member, Fulbright Association (for Fulbright Alumni) (2004 – present)
- Member, National Weather Association
 - Committee member: Weather Analysis and Forecasting Committee 1/02 - present)
 - Committee member: Education Committee 1/06 – present)
 - Committee member: Publication Committee 1/07 – present
 - Associate Editor 2002 – 2009
 - Editor 2009 – 2012
- Listed as a hurricane expert on the American Geological Institute list of hurricane experts for government. (9/05 – present)
- Summer 2009, 2010, 2012: Asked to review a promotion and tenure dossier for promotion from Assistant to Associate professor each year.
- Summer 2011, 2012 (2), 2014: Asked to review a promotion dossier for promotion from Associate to Full professor.
- Reviewed Fulbright scholar applications for the Russia Program 2007 – present. Also, in 2010 – present reviewed senior scholars for Russia, and in 2011 for the USA.
- Nominated to serve on the Board of Natural Resources (BNR) Science Roadmap for Natural Resources – Committee (national).

University of Missouri System

- IFC rep 2013 – 2014
- IFC task force on faculty workloads (Chair)

University of Missouri - Columbia

- Served on the MU Environmental Affairs Committee, 1998 – 2001, Fall 2002 – 2005.
 - Chair, September 1999 - May 2000
- Served on the Campus Committee for Safety, Fall 1999 - Fall 2002
- Serving on the Missouri State Drought Assessment Committee, including the Weather and Climate Committee, July 2005 - present
- Participated in "Project Enter" (2000, 2001, 2002), a University Sponsored program to showcase science and mathematics programs to junior high students across the state.
- Represented MU at the Annual University Corporation for Atmospheric Research meetings 8-9 October, 2002 (MU is member representative in that organization)
- UCAR Administrative Representative for MU (Sept. 2003 – present)
- Campus Faculty Committee on Tenure (Sept. 2004 – May 2005)
- Elected to the Graduate Faculty Senate (Spring 2006 - 2009)
- Serving on the Campus Planning Committee (2007 – 2010)
- Serving on the Parking and Transportation Committee (2007 – 2010)
- Fall 2008, served as a reviewer for Carnegie Endowment Fellowship for Peace applications (MU Fellowships Office)
- 2009 – present: Mizzou ADVANCE Mentoring Program mentor.
- 2010 – present: Commission on Student Success.
- 2010 – 2011: Campus Faculty Committee on Tenure (not P&T!).
- 2011, 2012: University of Missouri Undergrad Research Expo – April 26th Head judge physical sciences section.

- Participated in the review and selection of one NSF proposal to leave campus under the PIRE program.
- 2012- present: Elected to serve on Faculty Council (CAFNR, Vice Chair 2013 - 2014)
- 2013, Served on the Kemper Teaching Award Selection Committee.
- 2013 – 2015 MU Accreditation Task force. – Committee task 2,3
- 2013-2015 MU Grievance Oversight Committee (FC rep and an Chair)

College of Agriculture, Food, and Natural Resources

- Served in CAFNR Urban Outreach Program (Dean Mitchell) (1998)
- Served in CAFNR Learning Improvement Committee (Assoc. Dean Vaughn) (2000-present, Chair 2008 - 2009)
- Served CAFNR as Atmospheric Science partner on CSREES Multistate Research Project (formerly NC094, NC1018, now NC1179) *“Impact of Climate and Soils on Crop Selection and Management”* (2002- present)
- Serving on the Undergraduate Recruiting Committee (Assoc. Dean Vaughn; Sept 2002 – Aug. 2003)
- Serving as the North Central Region representative for Climate (with State Climatologist Dr. Patrick Guinan, 2000 - present)
- Served CAFNR South Farm Field Days 2006, 2007, 2008
- Serves CAFNR at the Missouri State Fair (1998 – present)
- CAFNR Search for Associate Dean (10/2008 – spring 2009)
- CAFNR Undergraduate Scholarship selection committee (2011)
- CAFNR Promotion and Tenure Committee (2011-2013)
- CAFNR Executive in Residence Advisory Board (2011-present)
- CAFNR Promotion and Tenure Workshop panelist (8 May, 2013)

School of Natural Resources

- Helped present weather and forecasting information for Ag. days (Sp. 98/Sp.99)
- Participate in SNR Summer Welcome advisement (1998 – present)
- Served on the SNR Internal Communications Committee (9/1998 – 9/1999)
- Served on the SNR Curriculum Committee (8/2000 - 1/2002)
- Serving as SNR representative to the Graduate Faculty Senate (5 / 2006 – 2009)
- Serving on the SNR Promotion and Tenure Committee 2004 – 2008 (Chair 2006 – 2008)
- Served as Chair of the SNR Director's evaluation committee Fall 2009.
- Served on the Tree Ring Laboratory search committee (2011)

Soil, Environmental, and Atmospheric Science Department

- Department Chair 2008 - present
- Program Leader (1/2002 – 2007)
- Soil, Environmental, and Atmospheric Science P&T representative to SNR (2005 – 2008)
- Soil Chemist Faculty Search Committee (Spring 2004)
- Chair, Mentoring Committee for Neil Fox (9/2002 – present)
- Advisor to the University of Missouri Meteorology Club (9/1997 - 3/2002)
- Departmental liason to the Graduate School for the MU Louis-Stokes Missouri Alliance for Minority Participation (LS-MoAMP) Summer Undergraduate Research Internship Program. (11/02 – present).
- Atmospheric Science Faculty Search Committee, Fall 1998, Fall 2000 - Spring 2001.
- Atmospheric Science FIG Advisor (6/2001 - present)
- Atmospheric Science Undergraduate Scholarship Committee (9/1997 - present)
 - Chair, 9/97 – 1/02
- Coordinated MU participation in the national game (9/1997 – 9/2001).
- Director of Graduate Studies (1/2002 - 2008)

- Formed and supervised the MU storm chase team (3/1998 – 2/2001).
- Guided the formation of the Mid-Missouri Chapter of the American Meteorological Society, Fall 1997, (we became a joint AMS – National Weather Association Chapter 2/2002).
- Oversees the local weather forecast game (9/1997 – present)
- Serving on the (Soil and) Atmospheric Science Curriculum Committee (9/1998 - present)
- Supervised the KU-MU Synoptic Forecasting Workshop (9/1997 – 9/2000)
- Serves on Atmospheric Science Program Committee to Review Doctoral Faculty renewals (10/00 - present)

Service to Elementary and Secondary Education in Missouri

- I have been invited to elementary and secondary schools in mid-Missouri to talk about our meteorology program, severe weather, and climate change. These schools include schools in Columbia as well as in Camdenton, MO. Also, during academic year 2000 - 2001, I served as a statewide judge for the junior high and senior high divisions of the Missouri Science Olympiad. In this role I helped administer the test for competition and score the final results to decide the "winners". Additionally, I have judged science fairs in Columbia and around the State of Missouri.

Summary of Administration Activity

In 2002, I was recognized by the School of Natural Resources as the Program Leader for Atmospheric Sciences. My position is unique in that in the Atmospheric Sciences, there was 100% turnover in faculty from 1997 – 2000. Thus, I was the senior person in this program before being granted promotion and tenure in 2003. I have also served as the Director of Graduate Studies for the Atmospheric Science Program and from 2004 onward, the Department of Soil, Environmental, and Atmospheric Sciences. In 2008, I became the Department Chair. I am also the UM system administrative representative to the University Corporation for Atmospheric Research (UCAR), which is the governing body of Atmospheric Science research nationally. I attend the UCAR annual meetings in Boulder, CO, and I have represented Atmospheric Science since 2002 at the biannual Atmospheric Science Heads and Chairs meetings. Finally, I oversaw the successful completion of our 8-year review for reapplication of UCAR membership in Spring 2005.

Administrative Positions

- 2008 – present Chair; Soil, Environmental, and Atmospheric Sciences (9/1/2008)
- 2002 – 2005 Program Leader for Atmospheric Sciences
- 2002 – 2008 Director of Graduate Studies (Soil, Environmental, and Atmospheric Science)
- 2003 – present UCAR member representative for the University of Missouri System. (Administrative Representative)
- 2005 – 2008 Soil, Environmental, and Atmospheric Science P&T representative to SNR. (Chair: 2006-2008)

Administrative Training:

- 2008 – 2009 Selected for the LEAD21 program (class of 2008 – 2009). This is a program with national reach for leadership training for future leaders in academics.

OTHER AWARDS AND HONORS (Personal)

- Eagle Scout, Boy Scouts of America, 1984
- Successfully Completed Honors Program at Cayuga County Community College, 1986
- David Ross Fellow (Purdue University), 1993 - 1995
- Outstanding Graduate Student (Purdue University), 1995
- Outstanding Alumnus (Purdue University), 2013

COMMUNITY SERVICE

Community-at-large

- Community Service in Association with the Boy Scouts of America, 1975 - 1986.
- Youth Baseball League Coach, 1975 - 1986.
- Parish Council Representative (Church), 1982 - 1984.
- Committee for Social Concerns (Church), 1981 - 1984.

- Head Orientation Guide, Riggs Hall, SUNY College at Oswego, 1987 - 1988.
- Habitat for Humanity of Lafayette, IN Volunteer, 1993-1995.
- Director of the community service committee, Knights of Columbus, Council 3357 /
 - Guilderland, NY, 1996 - 1997.
- Member, Knights of Columbus, Council 1529 / Columbia, MO, 1997 - present
 - Elected Recorder (secretary) July 2000 – 2004, 2007 - 2009
 - President of 4th Degree Assembly July 2001 – 2003
 - Deputy Grand Knight 2009 – 2011
 - Trustee 2011- present
 - Grand Knight 2013-2014
- Member, Greening Earth Society
- Member, Americans for Balanced Energy Choices (Advising scientist)
- Member, Missouri Coalition on Climate Change
- Joined the Scientific Round Table for TechCentralStation (2004 – present)
- Climate and Modeling expert for International Climate and Environmental Change Assessment Project (ICECAP) (2007 – present)
- Parish Council Representative (Education committee) (Church), 1998 - 1999
- Coach, Daniel Boone Little League, 2000 - 2003
- Served as the Missouri state-level judge for the junior high and high school Science Olympiad, AY 2000 - 2001.
- Columbia Soccer Club coach (2005 – 2010)
- Elected to the Columbia Catholic School - School Board (May 2004 – 2008)
 - President (2006 – 2008)
- Elected to the Columbia Catholic School – Home and School Association (May 2011 – 2013)
 - President (2011 – 2013)

REFERENCES

Available upon request.